



ARSYNCO, INC.
SUBSIDIARY OF ACETO CHEMICAL CO., INC.
FOOT OF 13TH STREET
CARLSTADT, BERGEN COUNTY
EPA ID NJD044688935

GENERAL INFORMATION AND SITE HISTORY

Arsynco is located on 12.3 acres in Carlstadt, Bergen County. The site is northeast of the intersection of Routes 17 and 20 in a densely populated residential/commercial area. The plant is constructed on former swampland drained by Berry's Creek, a tributary of the Hackensack River. While much of the former swamp has been filled for industrial development, some open swamp area still exists adjacent to the site.

Commercial Solvents was one of the first occupants of the site dating back to 1905, followed by Fries Brothers in 1932. In the late 1950's, the site was sold to the Inmont Corporation and in 1969 it was purchased by Arsynco, Inc.. Arsynco is owned by the Aceto Chemical Company, Inc., a holding company which is engaged in the import and export of chemicals.

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Arsynco has been in operation at the site from 1969 to the present and has been involved in batch chemical manufacturing of specialty chemicals. Arsynco's primary products are organic chemical intermediates, pharmaceuticals, amines, organic chlorides, and hair dyes. They also repackage chemicals for Aceto. A 1980 Hazardous Site Mitigation Administration report states that hazardous substances used in manufacturing processes include 1,1,1-trichlorethane, xylene, methanol, phenol, naphthol and pyridine. These solvents are used as chemical carriers and do not become part of the final product. Various chemical reagents (depending on the batch) are mixed with the appropriate solvents and reacted in vessels. When the reaction is complete, the products are separated and the spent solvents are removed. The solvents are either directly distilled or temporarily stored in tanks or drums prior to recycling into the system.

The waste products of the operation are still bottom residues, solvents, and off-spec products. Many of these waste products are stored in 55-gallon drums in several drum storage areas on site. A RCRA inspection conducted on November 25, 1987 by the Division of Waste Management revealed that the drum management practices were very poor. Some drums were leaking and not properly closed. Many drums were labeled improperly or not at all.

There are three tank farm areas on site which all have a secondary containment wall surrounding the tanks. The tank farm adjacent to building #19 is made up of 4 holding tanks which contain hydrochloric acid and sodium hydroxide. This area is lined with concrete. The other two tank farms are located adjacent to Building #2. These 13 tanks contain solvents, fuel oil, and gasoline. Both areas are lined with soil and show visible signs of contamination.

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The site is located within the Piedmont physiographic province. The principal geologic body in the area is the Brunswick Formation of the Triassic Era which consists primarily of grey feldspathic sandstone,

conglomerate, and red shale. Glacial till, a heterogeneous mixture of sand, silt, clay, gravel, cobbles, and occasional boulders, overlies the Brunswick Formation.

The Brunswick is an important aquifer in the area of the site. There are numerous municipal and industrial wells that tap the formation for water supply.

There are no monitoring wells on site. There is one supply well which is used for non-contact cooling water at a rate of 112,000 gallons per day. All other water is supplied by the Hackensack Water Company at a rate of 37,000 gallons per day. The Hackensack Water Company draws its water supply from the Oradell Reservoir located in Bergen County.

The potential for groundwater contamination does exist since there has been observed soil contamination on site which could migrate to groundwater.

Arsynco does not hold a Discharge to Groundwater permit.

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The site is mostly flat with an elevation of 5 to 10 feet above mean sea level. It was built on former swampland drained by Berry's Creek, a tributary of the Hackensack River. Stormwater run-off from the site is channeled directly to Berry's Creek which in turn flows through a tidal wetland to the Hackensack River. The property is on a floodplain and minor flooding occurs on an average of twice a year.

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Discharge 002 leads to the Rutherford Carlstadt Joint Meeting Sewage Authority and is regulated under a NJPDES-SIU modification permit. All of Arsynco's process wastewater flows into an onsite treatment pit that is lined with brick. The influent is first skimmed to remove the solvent layer, pH adjusted, clarified, stripped of VOs (in an air stripper) and discharged to the sewer.

Confirmed contamination of surface water (Berry's Creek) has been observed on several occasions. Several NOV's have been issued for exceeding permit limitations for total volatile organics and petroleum hydrocarbons. In February 1989, the Bureau of Planning and Assessment (BPA) sampled the surface water and detected mercury and toluene above action levels.

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There is potential for air contamination because of significant quantities of solvents present on site in storage areas and process areas. Also a malfunction in the water treatment section could result in VO emissions.

SOIL

There have been two soil sampling episodes conducted at Arsynco. The first one occurred in December 1985 and was carried out by E.C. Jordan of Portland, Maine under contract with the NJDEP as part of the Phase II Dioxin Site Investigation. Fifteen soil samples were collected and analyzed for 2,3,7,8-TCDD. The isomer was not detected in any of the samples analyzed. The second one occurred in May 1988. This was conducted by NJDEP Bureau of Metro Enforcement for enforcement purposes. Three soil samples were collected in the area of the tank farm near Building #2. All three samples contained significant concentrations of toluene ranging from 1300 to 17,000 ppm and ethylbenzene ranging from 1800 to 7100 ppm. The results confirmed that the New Jersey Spill Compensation and Control Act had been violated and a Notice of Violation was issued for an illegal discharge.

On February 1, 1989 the BPA performed a Site Inspection at Arsynco. Eight soil samples (including background) one sediment and one surface water sample was collected and analyzed for the Target Compound List plus 30 peaks. All non-aqueous samples were collected at a depth of 0 to 6 inches except for Soil #2 which was collected at 1 to 2 feet. The surface water sample was collected just below the surface of Berry's Creek which runs through the northeast section of Arsynco's property. Analytical results revealed volatile organic compounds, metals, pesticides, and phthalates above cleanup levels. The specific results are included in the summary of data section.

Soil contamination has been confirmed in several areas throughout the site.

DIRECT CONTACT

The potential for direct contact is low as the site is partially enclosed by a fence. Two sides that remain open are adjacent to the marsh.

FIRE AND EXPLOSION

The potential for fire and explosion does exist with the abundance of solvents used at the facility.

ADDITIONAL CONSIDERATIONS

There is the potential for damage to the flora, fauna, and off site property as past discharge monitoring reports have shown Arsynco to be outside permit limitations for total volatile organics (TVOs) and petroleum hydrocarbons.

ENFORCEMENT ACTION

In June 1984, the Division of Waste Management issued an Administrative Order to Arsynco for numerous violations of the Solid Waste Management Act including illegal discharges and poor drum handling practices.

In August 1987, the Division of Environmental Quality issued an Administrative Order and Notice of Civil Administrative Penalty Assessment for violations of the Air Pollution Control Act for operating equipment without fulfilling all conditions of their existing permit.

In April 1988, the Division of Environmental Quality issued an Administrative Order and Notice of Civil Administrative Penalty Assessment to Arsynco for violations of the Air Pollution Control Act for altering existing equipment without obtaining the required permit.

In October 1988, the Division of Water Resources issued an Administrative Order to Arsynco for violations of the Water Pollution Control Act for exceeding their NJPDES permit limitations for TVOs.

SUMMARY OF SAMPLING DATA

Sampling date:	May 15, 1985
Sampled by:	E.C. Jordon P.O. Box 7050, DTS Portland, Maine 04112
Samples:	Sixteen soil samples to be analyzed for 2,3,7,8 - TCDD (Dioxin).
Laboratory:	Environmental Testing and Certification Corporation (ETC) Edison, New Jersey
Sample description:	Most samples were collected within the surficial soil stratum (0-6 inches).
Contaminants detected:	The dioxin isomer was not detected in any of the surface soil samples collected.
QA/QC:	A duplicate sample and a combined field/equipment blank was submitted for analysis.
File location:	Division of Hazardous Waste Management, Metro Field Office.
Sampling date:	May 5, 1988
Sampled by:	NJDEP - Division of Hazardous Waste Management - Metro Bureau of Enforcement.
Samples:	Three soil samples were analyzed for purge and trap volatiles.

Laboratory: National Environmental Testing Inc.
1501 Grandview Avenue
P.O. Box 248
Thorofare, New Jersey 08086
609-848-3939

Sample description: The samples were collected within the solvent tank farm.

Contaminants detected:

<u>SAMPLE NUMBER</u>	<u>CONTAMINANT/CONCENTRATION</u> (ppm)
Soil 1	Toluene 2,000 Ethylbenzene 3,400
Soil 2	Toluene 17,000 Ethylbenzene 7,100
Soil 3	Toluene 1,300 Ethylbenzene 1,800

QA/QC: A trip blank and formal NJDEP QA review was performed.

File location: Division of Hazardous Waste Management
Bureau of Hazardous Waste Engineering.

Sampling date: February 1, 1989

Sampled by: NJDEP - Bureau of Planning and Assessment

Samples: Eight soil samples, one sediment and one surface water sample to be analyzed for the TCL.

Laboratory: VERSAR Laboratory
6850 Versar Center
Springfield, Va 22151
703-750-3000

Sample description: The soil and sediment (collected from a trench leading to Berry's Creek) samples were collected at the 0-6 inch level. The surface water sample was collected just below the surface of Berry's Creek.

Contaminants detected:

<u>SAMPLE NUMBER</u>	<u>CONTAMINANT/CONCENTRATION</u> (ppm)
Soil 1	toluene 17
	Total xylenes .7
	lead 520
	mercury 1.9
Soil 2	toluene 900
	ethylbenzene 1150
	1,2,4-trichlorobenzene 68
	Aroclor 1260 16
	cadmium 89.2
	mercury 2.1
	zinc 364
	cyanide 41.1
Soil 3	aroclor 1248 91
	mercury 3.2
Soil 4	ethylbenzene 370
	total xylenes 8100
	isophorone 32
	Di-N-butylphthalate 71
	bis-(2-ethylhexyl)phthalate 72
	Aroclor 1248 100
	Aroclor 1260 85
	lead 402
	mercury 3.6
Soil 5	acetone .160
	toluene .120
	total xylenes 2.9
	bis(2-ethylhexyl)phthalate 26
Soil 6	acetone .042
	4-methyl-2-pentanone .040
	toluene .160
	total xylenes .140
	dinethyl phthalate 390
	bis(2-ethylhexyl)phthalate 45
	Aroclor 1248 12
	cadmium 5.6
	chromium 228
	lead 425
	mercury 12.5
	zinc 369
	cyanide 159

Soil 7	Aroclor 1248	20
	mercury	6.5
Soil 8 (Background)	lead	392
	mercury	2.1
Sediment 1	ethylbenzene	1790
	total xylenes	14,200
	Aroclor 1248	1.3
	chromium	383
	mercury	2.7
Surface Water 1	acetone	2.4
	toluene	1.4
	2-methylphenol	.015
	benzoic acid	.210
	bis(2-ethylhexyl)phthalate	.012
	mercury	.0077

QA/QC:

One background (off site) sample was collected and analyzed for the TCL + 30 compounds. A trip and field blank was prepared and formal NJDEP QA review was performed.

File location:

NJDEP/DHWM/BPA

PRIORITY DESIGNATION

The site is designated a low priority because of the observed soil, sediment, and surface water contamination.

RECOMMENDATIONS

The Bureau of Planning and Assessment is transferring this case to the Bureau of Compliance and Technical Services for a responsible party investigation under State authority.

NEW JERSEY STATE DEPARTMENT



OF ENVIRONMENTAL PROTECTION

APPLICATION FOR PERMIT TO CONSTRUCT, INSTALL OR ALTER CONTROL APPARATUS OR EQUIPMENT

TO: New Jersey State Department of Environmental Protection
Bureau of Air Pollution Control
P. O. Box 1390
Trenton, New Jersey 08625

Date March 16, 1973

Use instructions, Air-D13

Sec. A	1. Full Business Name <u>Arsynco, Inc.</u>		
	2. Address of equipment and/or control apparatus: <u>Foot of 13th Street, Carlstadt, Bergen County</u>		
	No.	Street	Municipality County
	3. Location on premises (Bldg., Dept., area etc.) <u>Building #1</u>		
	4. Name of Business <u>Chemical Manufacturer</u> SIC No. _____		
Sec. B	1. <input type="checkbox"/> New process equipment and new air pollution control apparatus		
	<input checked="" type="checkbox"/> New air pollution control apparatus on existing process equipment		
	<input type="checkbox"/> New process equipment with no control apparatus		
	<input type="checkbox"/> Other: _____		
	2. Prior permit numbers covering this installation. Specify. <u>None</u>		
	3. Estimated starting date <u>March 1973</u> Estimated completion <u>March 1973</u>		
Sec. C	1. Description of operation <u>Phosphorous pentachloride is reacted with pyridyl thio acetic acid hydrochloride to make P.T.A. Chloride Hydrochloride</u>		
	2. Identify process equipment <u>S-5, (See Attachments)</u>		
	3. Raw materials (names) <u>Methylene chloride, acetone, phosphorous penta-chloride, hydrogen chloride, acetyl chloride, PTA Acid</u>		
	Total pounds per hour _____ Total pounds per batch _____		
	4. Operating procedure:		
	<input type="checkbox"/> Continuous: _____ hrs. per day _____ days per <input type="checkbox"/> week <input type="checkbox"/> month <input checked="" type="checkbox"/> Batch: <u>48</u> hrs. per batch <u>1 - 2</u> Batches per <input type="checkbox"/> day <input checked="" type="checkbox"/> week		
Sec. D	Physical and chemical nature of air contaminants which must evolve from operation and be emitted into the open air:		
	AIR CONTAMINANTS	AMOUNTS OF CONTAMINANTS	
		With Control Apparatus	Without Control Apparatus
	Hydrogen Chloride	<.02 lbs./hr.	20 lbs./hr.

(Continue on reverse side)



16916

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
JOHN FITCH PLAZA, P. O. BOX 2807, TRENTON, N. J. 08625

ORDER

To: **Arsynco Incorporated**
Seymour Mann, Registered Agent
P. O. Box 8
Carlstadt, New Jersey 07072

Re: N.J.A.C. 7:27- **8.3(e)2**
Plant Identification No. **00098**
Violation Occurred on Premises
Known As:
Foot of 13th Street, Lot 1E, Block
146, Carlstadt Borough, Bergen
County, New Jersey

WHEREAS, the State Department of Environmental Protection has determined by investigation(s) or inspection(s) made pursuant to the Provisions of the New Jersey Air Pollution Control Act that on February 21, 1980 you did violate Title 7, Chapter 27, Subchapter 8, Section 8.3(e)2, of the New Jersey Administrative Code.

The investigation(s) discloses the use of the equipment known as S-219 and S-247 without the control devices (controls by-passed) in use or functioning properly in accordance with Permit (P-17208/22570 & 1) and Certificate (CT-17208/22570 & 1) on the premises identified above.

NOW, THEREFORE, YOU ARE HEREBY ORDERED, to cease violation of said Subchapter on the premises owned, leased, operated or maintained by you on or before April 1, 1980.

Dated: March 17, 1980

cc: Local District
Field Office **Carlstadt Borough**
Newark

Edward J. Londres
Assistant Chief
Bureau of Air Pollution Control

CERTIFIED MAIL

Water Pollution Control Program SURVEILLANCE REPORT

Municipality: Carlstadt County: Bergen Watershed: Hackensack
Plant Name: Arsynco Inc Plant Classification: S-In
Location: End of 13th St.
Owner: Arsynco Inc
Licensed Operator: P. O. O.
Person Interviewed: — Signature: —
Nature of Wastewater: Toxic Waste

* Unit	Type	Remarks
		<p>A hand-drawn diagram of a rectangular pond. Three points on the top edge are labeled 'feed' with arrows pointing to them. One point on the bottom-left corner is labeled 'cattle' with an arrow pointing to it.</p>

Evaluation of Plant Maintenance: ~~Good~~ Unsatisfactory Poor

Average Daily Flow, MGD: 1 MGD est. Peak Flow, MGD: ?

Receiving Stream: Berrys Creek Surface Water Classification: TW-2

Visual Observation of Receiving Stream: Upstream: Black Downstream: Black

Special Remarks:

Special Remarks: Pond on rear of property - oil covered. wastes drain into the pond & flow out on low tide.

Inspected By: James D. Smith Date: 25 May 70

* Items checked () should be corrected as soon as possible and this office advised of said correction within 2 weeks of date of this report. Laboratory results will be forwarded on written request.

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STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES



NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM
SUPPLEMENT TO THE STANDARD APPLICATION FORM CP # 1

Let's protect our earth



APPLICATION TO DISCHARGE WASTEWATERS AND
RESIDUALS TO THE STATE'S LAND AND WATER

Answer all questions. Please print or type.

1. Circle the letter(s) for those discharge activities presently conducted or to be conducted as part of the facility's operation. (Seasonal facility operation shall be considered as a present operation.)
- In the space provided, indicate if there is an existing NPDES or NJPDES permit for each circled activity (yes/no).
 - In the space provided, indicate if this application is for a "new" source, an "existing" source, or a "renewal" of a current permit.

DISCHARGE ACTIVITY	YES/NO	NEW, EXISTING, RENEWAL
A. Municipal Surface Water Discharge	_____	_____
B. Industrial/Commercial Surface Water Discharge	_____	_____
C. Thermal Surface Water Discharge	_____	_____
D. Land Application of Sludge and Septage	_____	_____
E. Land Application of Industrial Waste Residues	_____	_____
F. Landfill Wastes	_____	_____
G. Spray Irrigation	_____	_____
H. Overland Flow	_____	_____
I. Rapid Infiltration	_____	_____
<input checked="" type="radio"/> J. Surface Impoundment	YES	EXISTING
K. Underground Injection	_____	_____
<input checked="" type="radio"/> L. Discharge to a Domestic Treatment Works	NO	EXISTING

2. Facility: Latitude 40° 50 min. 12 sec. Longitude 74° 06 min. 36 sec.

3. Name and address of applicant's parent corporation, subsidiary, or partnership data.
(Attach additional sheets if necessary.)

Name ACETO CHEMICAL CO., INC. Telephone No. (212) 898-2300
Mailing Address 126-02 NORTHERN BOULEVARD
City or Town FLUSHING State NEW YORK Zip Code 11368

4. Facility's Contact Person (This person must be responsible for and familiar with the facility operation.)

Name MR. DENNIS SPACE Telephone No. (201) 933-2323
Address of Operator FOOT OF 13th STREET
City or Town CARLSTADT State NEW JERSEY Zip Code 07072

5. Is the facility a
- ☐ Federal Facility
 - ☐ State Facility
 - ☐ Public Facility (a local government subdivision)
 - ☒ Private Facility

(Over)

6. List in order of priority all Standard Industrial Codes (SIC) which best reflect the principal products or services provided by the facility.

<u>SIC</u>	<u>PRODUCTS OR SERVICES PROVIDED</u>
2865	ORGANIC INTERMEDIATES

7. If applicable, identify all administrative orders, temporary or permanent injunctions, civil administrative penalties, civil penalties, or criminal actions concerning pollution issued against the facility during the last five (5) years.

<u>ENFORCEMENT ACTION</u>	<u>DATE OF ACTION</u>	<u>RESULT</u>
NONE		

8. If applicable, list all locations involved in the storage of solid or liquid waste at the facility for which the NJPDES application is being made and the ultimate disposal sites of solid or liquid wastes generated by the facility being permitted.

<u>STORAGE SITE(S)</u>	<u>ULTIMATE DISPOSAL SITE(S)</u>
SEE ATTACHED	

9. If applicable list the amount of sludge generated per month and type of treatment, if any, given to the sludge just before its disposal.

Amount of Sludge Generated

When it was necessary to clean
the basin, approximately 400
cubic feet of solids were collected.

Type of Sludge Treatment

No treatment--sludge is
disposed of following all local,
state and federal regulations.

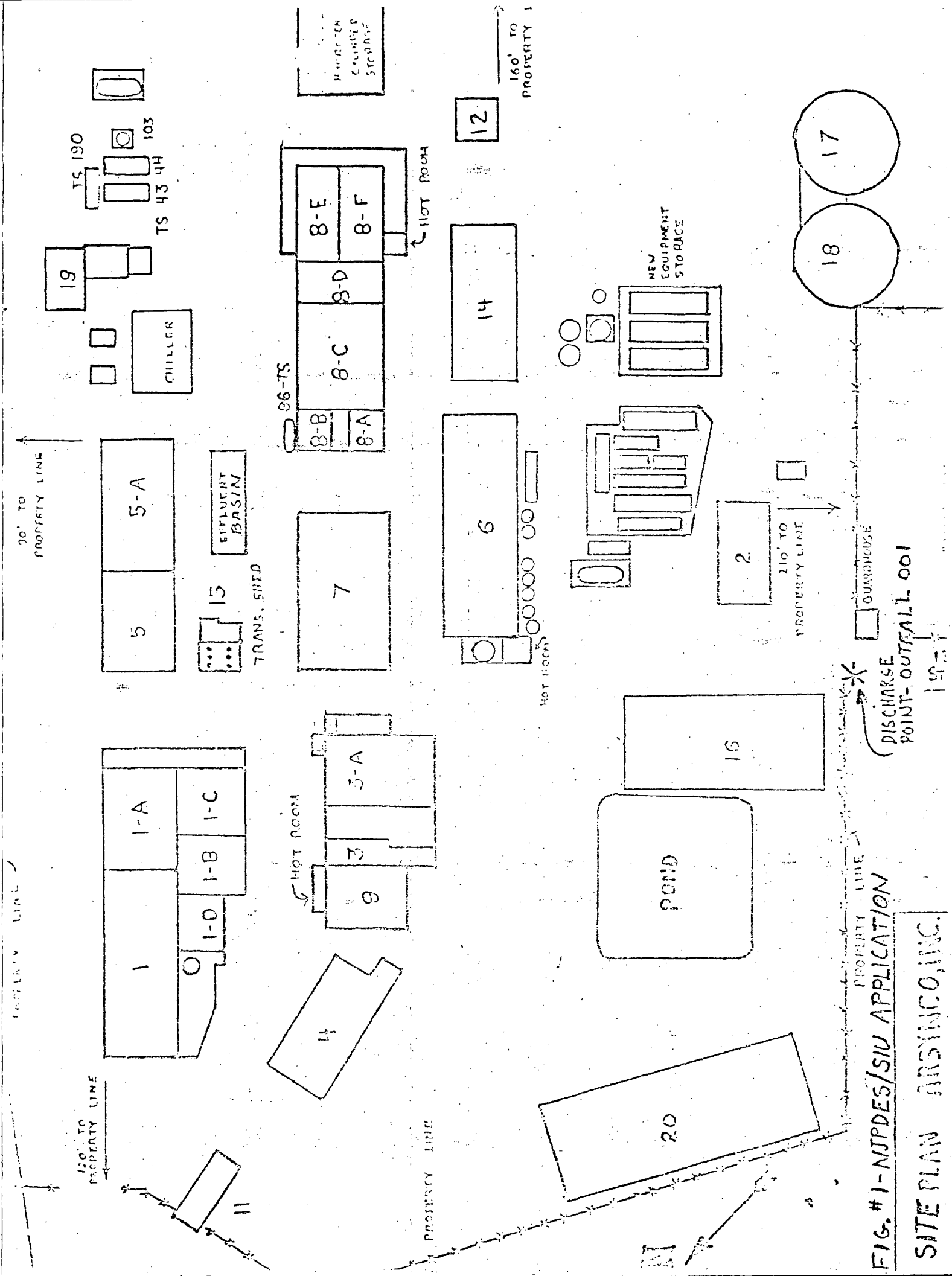


FIG. #1-NJPDES/SIU APPLICATION

SITE PLAN ARSINCO, INC.

APPLICATION FOR PERMIT TO DISCHARGE TO A DOMESTIC TREATMENT WORKS

1. Facility Name ARSYNCO, INC.	2. D.E.P. ID No. (Official Use Only)
3. DTW Used JOINT MEETING	Sewer System Owner CARLSTADT Treatment Plant Owner CARLSTADT-RUTHERFORD-EAST

4. This application must include: (See Instructions)
 a. Discharge Location Map b. List of Building Floor Drains FIG. 2 c. Line Drawing FIGURE 3

5. Average Flows and Treatment (For Each Discharge to DTW System)				
OUTFALL (Name or No.)	B. OPERATION CONTRIBUTING FLOW		C. TREATMENT	
	1. Operations (List)	2. Average Flow (Include Units)	1. Description	2. Codes From Table I
001	Sanitary Waste water	184.5 GPD		4E
	Condensate & Boiler Blowdown	20,629.3 GPD	Effluent Basin	4E
	Water Softener	1,125.2 GPD	Effluent Basin	4E
	Storm water	12,748.6 GPD	Effluent Basin	4E
	Chemical Manufacturing - Wash & Flush Reactors, Stills	1,906.9 GPD	Effluent Basin	1U, 1H, 4E
	Chemical Manufacturing - Raw Materials	283.4 GPD	Effluent Basin	1U, 1H, 4E
	Unaccountable - Municipal and well waters	103,219.2 GPD	Effluent Basin	1U, 1H, 4E
	Direct Contact well water - Vacuum Jets	9,476.8 GPD	Effluent Basin	1U, 1H, 4E
	- Liquid Ring Vacuum Pump	7,076.8 GPD	Effluent Basin	1U, 1H, 4E
	Laboratories	1,409.7 GPD	Effluent Basin	1U, 1H, 4E

6. Intermittent Flow (Complete if any discharge described in 5. above is intermittent or seasonal)					
OUTFALL (Name or No.)	OPERATIONS CONTRIBUTING FLOW	FREQUENCY	DURATION	FLOW RATE	TOTAL VOLUME
001	Sanitary waste water	Day Shift	8 hours	2 GPM	960 Gal.
	Water softener	Once per Week	3 hours	25 GPM	4,500 Gal.
	Storm Water	Say 1/2"	4 hours	473 GPM	113,571 Gal.
	Chemical Manufacturing	per hour			
	a) Reactor washing & flushing	15% operation	3.6 hours	14.5 GPM	867 Gal.
	b) Raw materials				
	Vacuum jet well water	12.5% operation	3.0 hrs.	75 GPM	13,500 Gal.
	Laboratories	33.3% operation	8.0 hrs.	4.4 GPM	2,123 Gal.

7. Maximum Production A. Does an effluent guideline limitation promulgated under Section 304 of the Federal Act apply to your facility? ☒ Yes (Complete 7B) ☐ No (Go to Item 8)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measure of operation)?
☐ Yes (Complete 7C) ☒ No (Go to Item 8)

C. If answer to 7B is Yes, list quantity which represents a reasonable measure of actual production, in terms and units used in the applicable effluent guideline.

QUANTITY PER DAY	UNITS OF MEASURE	OPERATIONS, PRODUCT, MATERIAL, ETC.	AFFECTED OUTFALLS

*Assuming 5 days per week if continuous operation because facility

8. STORAGE SITE(S)

ULTIMATE DISPOSAL SITE(S)

- a. Drum Storage Area - 4 drums of solvent per week from effluent basin are steam stripped and the residue put in waste drums which are stored in hazardous drum area.
- b. Solids from effluent basin - when needed, the basin is cleaned and the solids tested. They are then landfilled following all local, state and federal regulations. The basin has not been cleaned since 1981.
- c. Hazardous waste solids are kept in the hazardous waste area. We do not store liquid waste; we recover our solvents for reuse.

CECOS International

MEMORANDUM

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTIONTO: Mr. Peter Lynch through Mr. George Bronson *6/13*FROM: Mr. Greg Isbrecht *6/13*SUBJECT: Arsynco Incorporated - Site Inspection
13th Street
Carlstadt, NJ

DATE: July 7, 1977

File
On June 28, 1977, this writer inspected the premises of Arsynco, Inc., Carlstadt, NJ. Mr. Lyle Leach, Arsynco, conducted this writer through the plant premises.

During this site inspection two noteworthy conditions were observed by this writer. First, to the east of Arsynco's production building #19 exists at least two shallow channels so placed by Arsynco to convey rainfall from the immediate area located between building #19 and building #8 to Berry's Creek. This in itself would present no problem to this writer if it were not for the fact that repeated chemical spills occurring in this general area are allowed to drain unchecked into Berry's Creek via these channels. There was continued evidence of a recent spill that had occurred at a small tank farm adjacent to building #19. During previous site inspections Arsynco personnel had informed this writer said spills were sulphuric acid treated only with soda ash to neutralize same. There was a clear, distinct trail of yellow material from the spill site to one of the aforementioned yard drains into Berry's Creek. Mr. Richard Klein, Arsynco, had noted during previous visits that no attempt was made by Arsynco to contain or clean up sulphuric acid spills once they occurred, only that the soda ash was applied. The inspection this date revealed the conditions at the sulphuric acid spill site had not changed. It was apparent no effort was made to collect any of the materials.

Arsynco representatives have conveyed a general unconcerned attitude regarding housekeeping at its plant. In particular, the company seems totally disinclined to require its employees to clean up any of the numerous small chemical spills that are obvious to outside observers inspecting the premises. This writer gathered samples from one of the yard drains and a reportedly disconnected french drain coming from building #19. It is this writers understanding that propylene imine is produced in building #19.

The second item of interest was a spent toluene spill of an undetermined quantity purported by Arsynco representatives to have taken place during the midnight shift of this date. This writer questioned Mr. Richard Klein, plant safety engineer, whether he or any other Arsynco employee had notified N.J.D.E.P. of the spill. Mr. Klein stated that to his knowledge neither he nor anyone else had so notified D.E.P.

Attachment C

This writer then took samples of the toluene spill. At the time, it did not appear to this writer that any of the spilled toluene had directly entered Berry's Creek or any conveyance systems connected to Berry's Creek. Arsynco had attempted to contain a portion of the spilled toluene by spreading a light layer of yellow sand over some of the spill. The remainder was being allowed to evaporate and soak into the soil. Having raised the issue of the toluene spill with Arsynco representatives Arsynco continued to ignore it making no visible effort to further clean it up or verbal indication of intent.

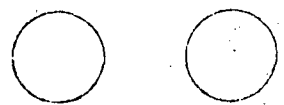
This writer called Mr. John Vernam, Special Services, to ascertain if the toluene spill or any other spill at Arsynco had recently been reported to D.E.P. by Arsynco. Mr. Vernam had no such record of any reported spills at Arsynco.

There is an attached Arsynco plant grounds schematic with indications as to the location of the toluene spill, sulphuric acid spill, and where samples were gathered. It is this writer's opinion that Arsynco's past and present contumelious attitude regarding in-plant housekeeping has contaminated the grounds, groundwaters underlying therein, and ultimately Berry's Creek. This Department would best be advised to define the severity of Arsynco's problem to enable proper resolve to be applied to the matter.

E65:G25

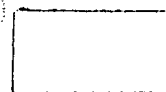
EMPLOYEE PARKING

WATER



BLDG. 17 & 18

GUARD
HUT



BLDG. 2

MAIN OFF.

LOCKER
ROOM

BLDG. 16

COOLING WATER
POND

OFFICES

LAB

BLDG. 20

TANK FARM

TOLUENE
SPILL
AREA

BLDG. 12

BLDG. 14

BLDG. 6

BLDG. 9

BLDG. 3

BLDG. 8

BLDG. 7

BLDG. 4

ACID PIT

H.V. SHED

BLDG. 1

BLDG. 11

SULPHURIC ACID SPILL SITE

BLDG. 19

BLDG. 5

DRAIN
BERRY'S
EKK

(10)

HEALTH DEPARTMENT
CARLSTADT, NEW JERSEY

Julie

COMPLAINT FORM

DATE JUNE 30, 1982 TIME _____ BY: PHONE - PERS. ON - MAIL JULIE
(CIRCLE)

RECEIVED BY JOAN DECHERT

COMPLAINT ARSYNCO CHEMICAL CO.

ADDRESS 13th STREET CARLSTADT PHONE 933-2323

NATURE OF COMPLAINT ANONYMOUS--- LEAKY DRUMS BEING ~~XXXXXX~~ BURIED

BY EMPLOYEES--~~XXXX~~INCONTENTS UNKNOWN

JULIE INVESTIGATED FOUND LEAKY DRUMS, BUT COULD NOT DETECT IF
THEY WERE BEING BURIED --REFERRED TO DEP FOR INVESTIGATION

CHECKED BY *Julie* DATE _____

RESULTS: _____

*DEP CAME AND TOOK OVER CASE.
Went on inspection with John Dyman (DEP)*

Attachment E

MID-BERGEN REGIONAL HEALTH COMMISSION

201 Continental Avenue
River Edge, New Jersey 07661

Complaint #

Date

(201)261-8008

Received by

Complainants Name Anonymous Phone

Address Card Mailed Date

Premises Complained of - Name Arsynco - Address

Nature of Complaint Chemical Co.

West wall of building - railroad track - 17	TYPE OF COMPLAINT		
North East Section of building 8	INSECTS	RATS	INSAN.
Front gate - old trailer - dump big pit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
put chemicals underground - dump the site	NUISANCE	SEWAGE	SOLID WASTE
would accept them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	MISC.		

Assigned to Julie Popen date 6/23/82

Report of findings

Visited site - noted that there were many leaky drums in areas. Significant amount of drums that are in unfavourable condition.

Complainant stated that first he contacted 646-2600 - EPA to make formal complaint. They referred him to CE DRECO.

Action Taken

Recommendation

Inspector

CC 1000

(over)

5/6/85

ARSYNCO, INC.

AMENDMENT TO CLOSURE PLAN
AS REQUIRED BY N.J.D.E.P.

1. Arsynco, Inc. facility is located on 12.9 acres of which 10 acres are developed. Arsynco, Inc. is a manufacturer of Specialty Organic Chemicals, and we are a batch operation. There are six manufacturing buildings, one machine shop, one boiler-room, two buildings for shipping & receiving, one building for the Q.C. Lab, supervisors offices and locker-room, one building for R&D, one building that houses the main office and employee lunch and locker-room, and two other buildings that are used for storage. There are forty tanks on site that are used to store raw materials and solvents for recycling (solvents for recycling are stored in 10 of the tanks).

2. Arsynco, Inc. has on site:

(a) Solvents for recycling.

- I. Toluene
- II. Xylene
- III. Methanol
- IV. Isopropyl Alcohol
- V. Methylene Chloride
- VI. 1,1,1 Trichloroethane

(b) The residue from the recycling of these solvents.

(c) Still bottom residue from distillation.

3. Tank description including #, capacity, location above or below ground and the specific type of waste stored:

<u>TANK NO.</u>	<u>CAPACITY</u>	<u>LOCATION ABOVE OR BELOW GROUND</u>	<u>TYPE OF SOLVENTS FOR RECYCLING</u>
TS-71	6,333 gals.	above ground	Distilled Xylene
TS-100	1,000 gals.	" "	Xylol, Methanol
TS-62	3,772 gals.	" "	Rec. Xylene
TS-70	500 gals.	" "	Rec. Methylene Chloride
TS-80	500 gals.	" "	" "
TS-58	2,600 gals.	" "	Rec. Isopropyl Alcohol
TS-78	19,800 gals.	" "	Rec. Toluol
TS-8-1	3,500 gals.	" "	Rec. Toluol
TS-8-2	3,500 gals.	" "	Rec. Methanol
TS-8-3	3,000 gals.	" "	Rec. Isopropyl Alcohol



File

Logged III

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029

TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

October 17, 1985

Mr. James Dillon, General Manager
Arsynco Chemical Company
Foot of 13th Street
Carlstadt, NJ 07072

Dear Mr. Dillon:

On September 24, 1985, an inspection of the Arsynco Chemical Company (Arsynco) facility in Carlstadt was conducted by representatives of the Division of Water Resources (DWR) in response to a report of a spill by a representative of Arsynco.

During the inspection the following observations were made:

1. A 5000 gallon tank containing 20% sodium hydroxide developed a leak at a valve and approximately 3800 gallons were released into the containment area. The containment area failed at several points and seepage was observed outside the dike walls. Arsynco employees neutralized the sodium hydroxide using sulfuric acid and acetic acid and then washed the residue into a ditch which drains into Berry's Creek.
2. A precipitate from the reaction of the sodium hydroxide and the acids was observed to have settled in the drainage ditch.

ATTACHMENT 0

New Jersey Is An Equal Opportunity Employer

3. Several pools of discolored liquids were observed at various locations in the rear yard area of the facility. These pools were results of past spills.
4. The ditch drains the rear yard of stormwater runoff as well as all spills.
5. A second ditch located in the rear yard of Arsynco was observed receiving discolored seepage from the soil. This ditch also drains into Berry's Creek.

Based from these observations, DWR has determined that a potential exists for surface water and ground water contamination from hazardous substances. Unpermitted discharges to the surface water and ground water are in violation of N.J.S.A. 58:10A-1 et seq., the New Jersey Water Pollution Control Act, and N.J.S.A. 58:10-23.11c et seq., the Spill Compensation and Control Act.

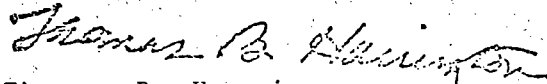
Arsynco is therefore Directed to:

1. Contain the discharge of the reaction precipitate from entering Berry's Creek.
2. Submit a plan within fourteen (14) days of the receipt of this DIRECTIVE outlining the removal of the reaction precipitate from the ditch, and also a plan for the containment of any future spills in the rear yard to prevent them from entering Berry's Creek a tributary of the Hackensack River.
3. Allow access for DWR representatives to conduct soil and water sampling from the rear yard in order to evaluate the extent of potential ground water contamination. Under N.J.A.C. 7:14A-6.15 et seq., Arsynco may be required to obtain a NJPDES permit to discharge to the ground water based on, "activities or past practices which have resulted in an actual or potential discharge of hazardous waste, hazardous waste constituents, or other ground water pollutants onto the land."

Failure to comply with this DIRECTIVE may result in further enforcement action by this office, including the imposition of penalties, pursuant to N.J.S.A. 58:10A-10. Compliance, however, shall not be construed to relieve Arsynco from appropriate penalties for the cited statutory violations.

If you have any questions concerning this DIRECTIVE, please contact Mr. Anthony DeCandia of this office at (201) 646-1200.

Very truly yours,



Thomas B. Harrington
Supervisor, Compliance
Monitoring Unit
Metro Bureau of
Regional Enforcement

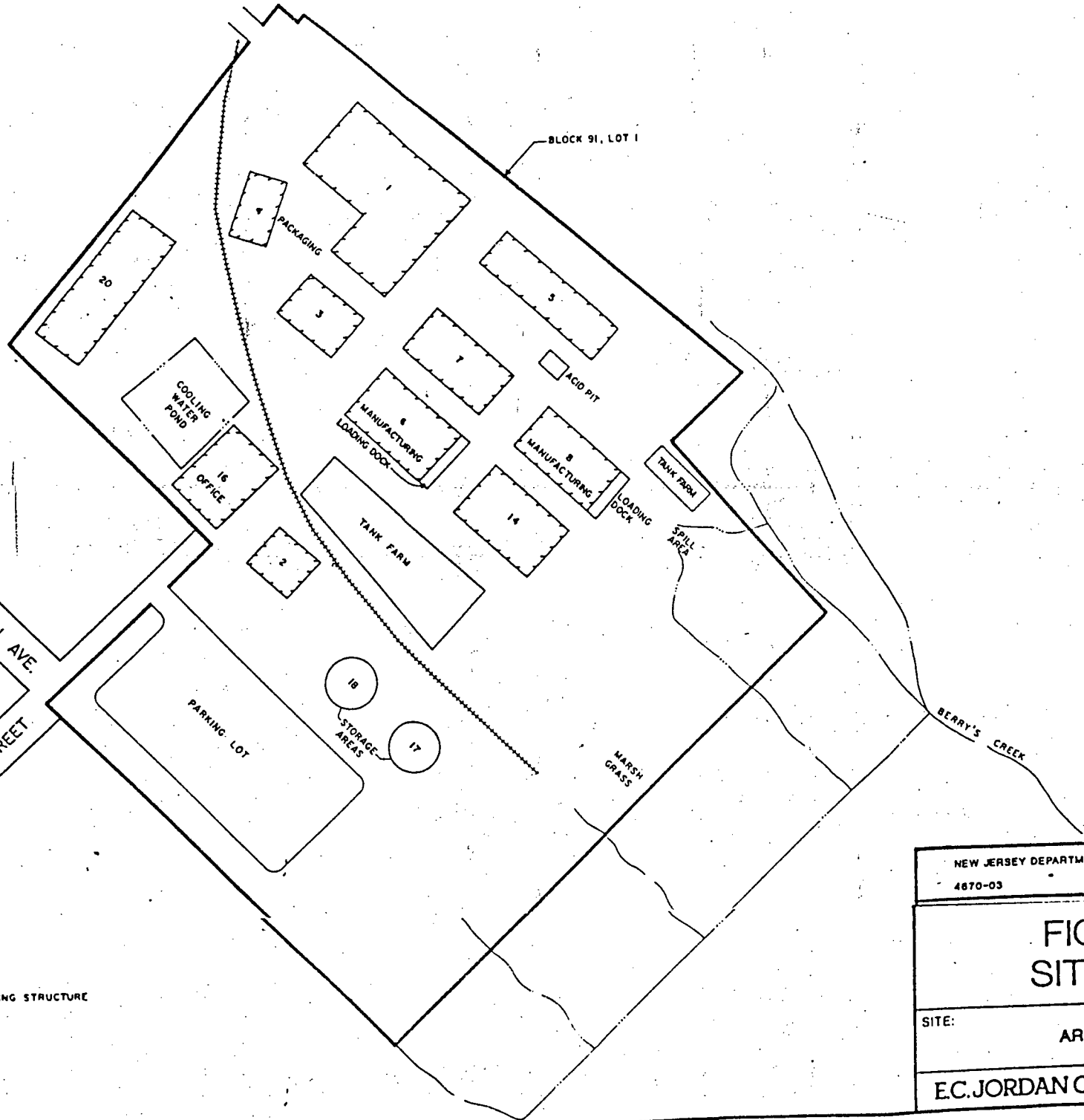
E126:G25

cc: Albert Greco

bcc: Marianne Montgomery



BLOCK 91, LOT 1



LEGEND



EXISTING STRUCTURE

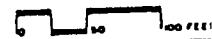
MAP 2

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
4870-03 JUNE 1988

FIGURE 2
SITE PLAN

SITE: ARSYNCO, INC.

EC. JORDAN CO.



SIXTEENTH

204.64

17.3

224.88

106.62

429.50

4.78

22.28

MATCH LINE

95.97

12.273 AC.

91

CONRAIL (FMLY. ERIE LACKAWANA)

1,445.35 (S) TOTAL

504.3

404

NEW

JERSEY

STATE

MAP 3

UE

FIFTEENTH

225

1.136 AC.

99

LIMIT

220

B.L.

225

300

BLOCK

220

5

7.65

12.4

THIRTEENTH

200

DIVISION & AVE.

200

97

83

NEW

1 2 3 4
28
30 25 25 25

29.71

75.05

70.29

50

386

15

390

34.93

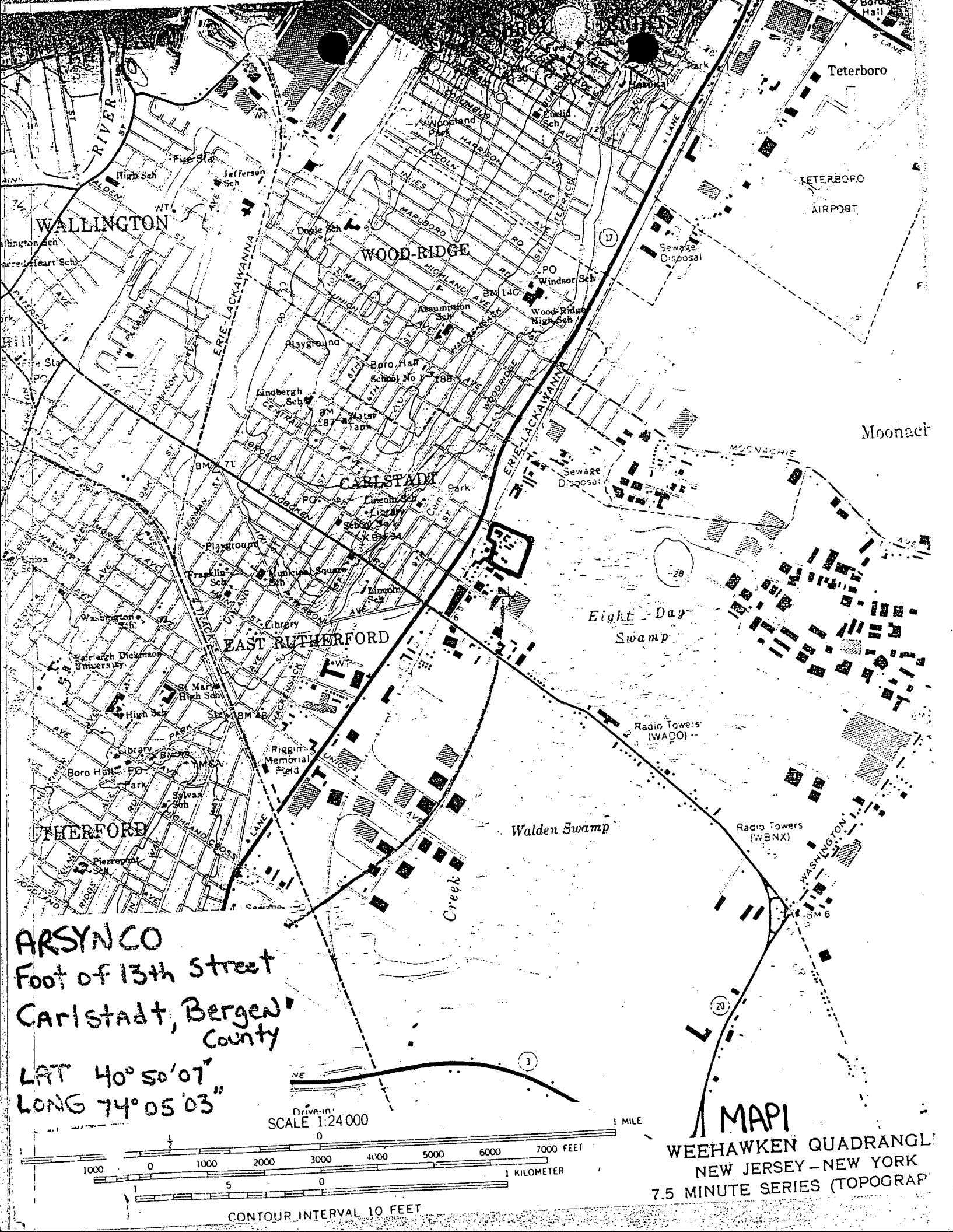
ATTACHMENTS

MAPS

1. USGS QUADRANGLE MAP
2. SITE MAP
3. TAX MAP
4. NJ ATLAS BASE MAP
5. GEOLOGIC OVERLAY
6. WATER SUPPLY OVERLAY
7. WATER WITHDRAWAL MAP

ATTACHMENTS

- A. DWR COMPLIANCE EVALUATION INSPECTION REPORT
- B. DWR ADMINISTRATIVE ORDER, OCTOBER 1988
- C. DHWM/BHWE SAMPLING RESULTS AND QA
- D. DWR COMPLIANCE EVALUATION INSPECTION REPORT
- E. DEQ ADMINISTRATIVE ORDER, APRIL 1988
- F. CLOSURE PLAN PREPARED BY EARTH TECHNOLOGY CORP.
- G. RESPONSIBLE PARTY INVESTIGATION
- H. 6 NOTICE'S OF VIOLATION
- I. DWM FACILITY INSPECTION REPORT
- J. DEQ ADMINISTRATIVE ORDER, AUGUST 1987
- K. WRITTEN REPORT OF INCIDENT, MARCH 1987
- L. BUREAU OF EMERGENCY RESPONSE INVESTIGATION, FEBRUARY 1987
- M. EPA PERFORMANCE AUDIT INSPECTION, APRIL 1986
- N. DIOXIN SITE INVESTIGATION REPORT, DECEMBER 1985
- O. DWR INSPECTION, OCTOBER 1985
- P. NJPDES NOTICE OF AUTHORIZATION
- Q. NJPDES PERMIT
- R. DWM ADMINISTRATIVE ORDER
- S. DWM NOTICE OF VIOLATION
- T. DWM NOTICE OF VIOLATION
- U. RCRA INSPECTION REPORT, SEPTEMBER 1981
- V. FACILITY CLOSURE PLAN, MAY 1981
- W. LISTING OF AIR PERMITS



ARSYN CO
Foot of 13th Street
Carlstadt, Bergen
County

LAT 40° 50' 07"
LONG 74° 05' 03"

Drive-in
SCALE 1:24000

1 MILE

MAPI

WEEHAWKEN QUADRANGLE
NEW JERSEY-NEW YORK
7.5 MINUTE SERIES (TOPOGRAPHIC)

CONTOUR INTERVAL 10 FEET

SIXTEENTH

595.97'

204.64

224.88

106.62'

429.50'

222.28'

MATCH LINE

CONRAIL (FMLY. ERIE LACKAWANA)
1,445.35' (S) TOTAL

404'

JERSEY

NEW

STATE
MAP 3

29.71'

75.05'

70.29'

50'

386'

15'

390'

UE

34.93'

FIFTEENTH

225'

1.136 AC.

99

B.L.

225'

300'

THIRTEENTH

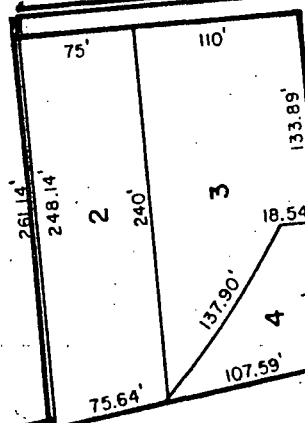
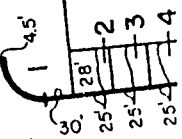
200'

DIVISION 4 AVE.

200'

97

83 - NEW



5

12.50'

36.54'

12.4'

12'

216.78'

75'

110'

137.90'

107.59'

75.64'

410.40'

4.78'

4.56'

4.5'

42'

80'

90

90

90

90

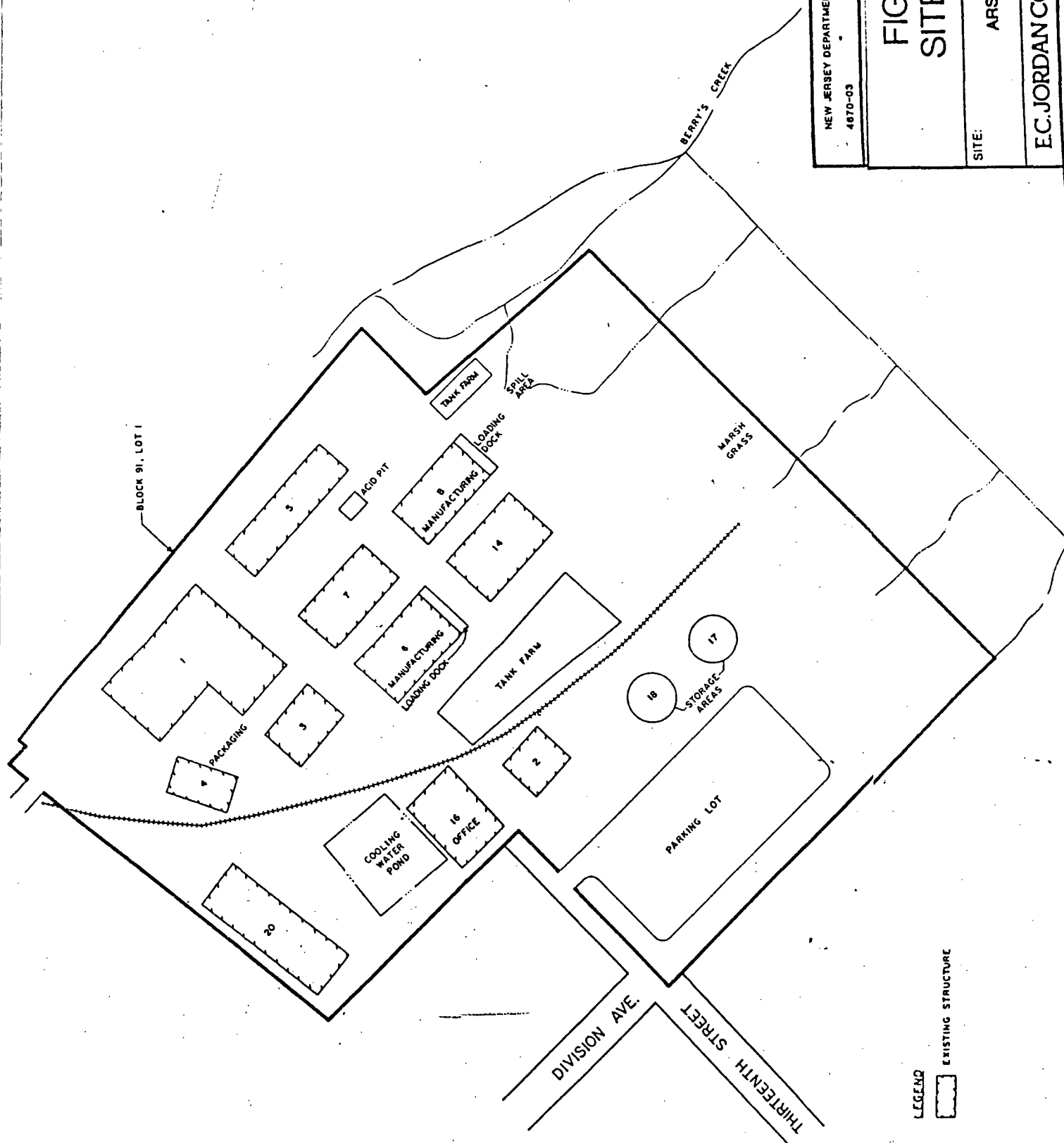


NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUNE 1988
4870-03

FIGURE 2 SITE PLAN

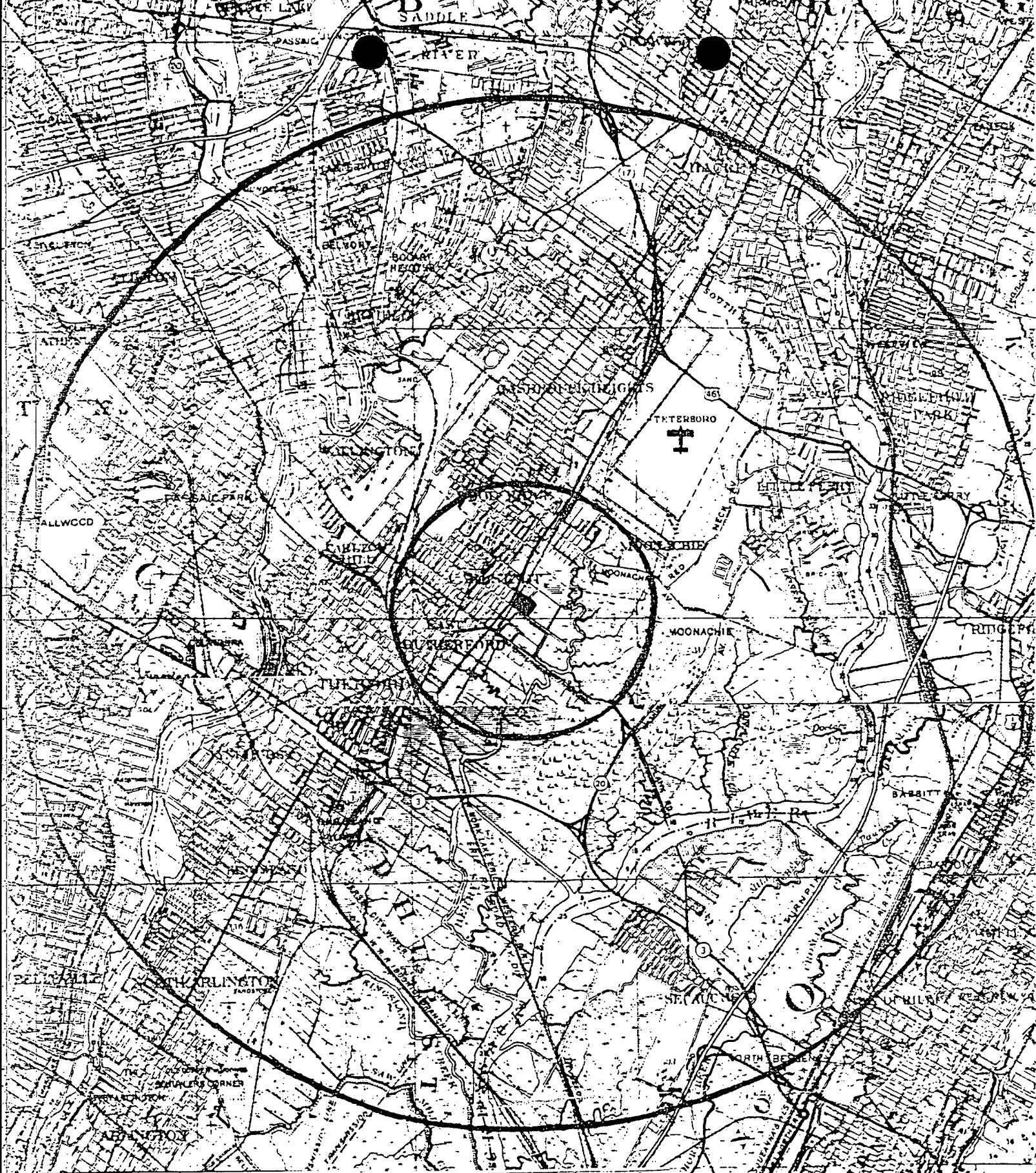
SITE: ARSYNCO, INC.

EC.JORDAN CO.



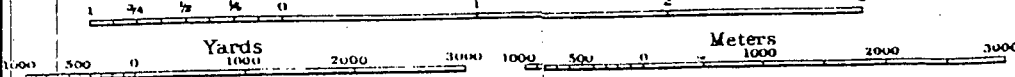
LEGEND
EXISTING STRUCTURE

MAP 2



Scale: 1 Mile to an inch.
Miles

MAP 4



AMERICAN MAP COMPANY, BALTIMORE, MD.

SHEET 26
TOPOGRAPHIC SERIES

LEGEND FOR ATLAS SHEET 2 (GEOLOGY)

- △ — INDUSTRIAL WELL YIELD OVER 70 GALLONS PER MINUTE (INCLUDING PRIVATE WELLS)
- — PUBLIC SUPPLY WELL YIELDING OVER 70 GALLONS PER MINUTE
- ⊕ — UNSUCCESSFUL ROCK WELL YIELDING LESS THAN 70 GALLONS PER MINUTE
- ⊙ — UNSUCCESSFUL SAND WELL YIELDING LESS THAN 70 GALLONS PER MINUTE
- † — NO TEST — NO DATA ON YIELD

--- FAULT (DASHED WHERE INFERRED)

--- CONTACT (DASHED WHERE INFERRED)

--- PHYSIOGRAPHIC PROVINCE BOUNDARY

--- WATER SUPPLY TRANSMISSION LINE

NOTE: WHERE THE PRECAMBRIAN FORMATION BOUNDARIES TERMINATE ABRUPTLY, IT IS THE GEOLOGIST'S OPINION THAT THE GEOLOGICAL COMPLEXITY OF THE AREA PREVENTS FURTHER INTERPRETATIONS.

Kmr — CRETACEOUS MAGOTHY AND RARITAN FORMATIONS (SAND AND CLAY)

Tb — TRIASSIC BRUNSWICK FORMATION

Tc — TRIASSIC CONGLOMERATE BEDS OF THE STOCKTON FORMATION

Tl — TRIASSIC LOCKATONG FORMATION

Tdb — TRIASSIC DIABASE

Tbs — TRIASSIC BASALT FLOWS

Sd — SILURIAN DECKER LIMESTONE AND LONGWOOD SHALE FORMATIONS

Sgp — SILURIAN GREEN POND CONGLOMERATE

Omb — ORDOVICIAN MARTINSBURG SHALE

Col — CAMBRO ORDOVICIAN KITTATINNY LIMESTONE

Ch — CAMBRIAN HARDYSTON SANDSTONE

PRECAMBRIAN:

gh — HORNBLende GRANITE WITH PYROXENE GRANITE

ga — ALASKITE

am — AMPHIBOLITE

px — PYROXENE GNEISS

gnq — QUARTZ PLAGIOCLASE GNEISS

gnb — BIOTITE GNEISS

sk — SKARN, GRAPHITE SCHIST

Ind — FORMATION NOT DETERMINED

LEGEND

WATER SUPPLY



AREA SERVED BY PRIVATE WATER SERVICE COMPANIES



AREA SERVED BY REGIONALLY OWNED WATER SERVICE COMPANIES



AREA SERVED BY MUNICIPALLY OWNED WATER SERVICE COMPANIES



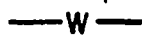
AREA NOT PRESENTLY SERVED BY WATER SERVICE



PUBLIC SUPPLY WELLS



SURFACE WATER INTAKE



MAJOR WATER MAINS

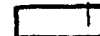


WATER MAIN ACROSS HIGHWAY FOR FUTURE USE

SEWAGE, LANDFILL



AREA SERVED BY PUBLIC SEWAGE SERVICE



AREA NOT PRESENTLY SERVED BY SEWAGE SERVICE



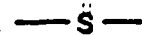
SANITARY LANDFILLS



SEWAGE TREATMENT PLANTS (CAPACITY < 0.3 mgd)



SEWAGE TREATMENT PLANTS (CAPACITY \geq 0.3 mgd)



MAJOR SEWAGE TRANSMISSION LINES

DRAINAGE BASIN



DRAINAGE BASIN BOUNDARY



RIVER BASIN BOUNDARY

HUDSON

DRAINAGE BASIN NAME



STREAMS AND RIVERS

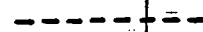


FLOOD PRONE AREAS

POPULATION



COUNTY BOUNDARY



MUNICIPAL BOUNDARY

()

POPULATION DENSITY IN PERSONS PER SQUARE MILE

[]

AREA IN SQUARE MILES

%

PERCENT AREA OF MUNICIPALITY ON BLOCK



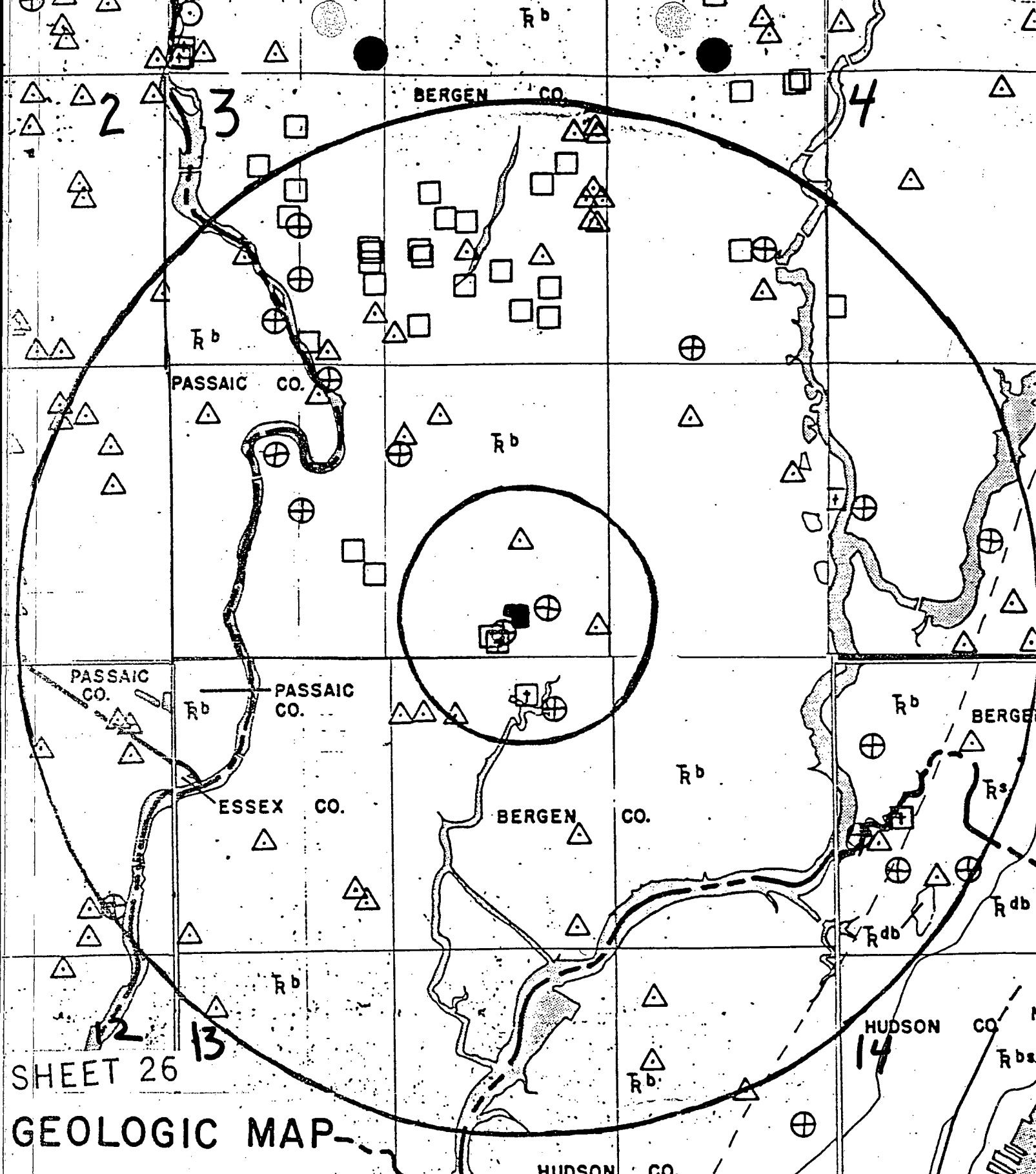
MARKET ROADS



BUILT UP AREAS

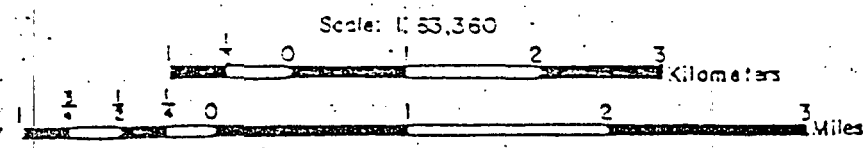


STATE BOUNDARY



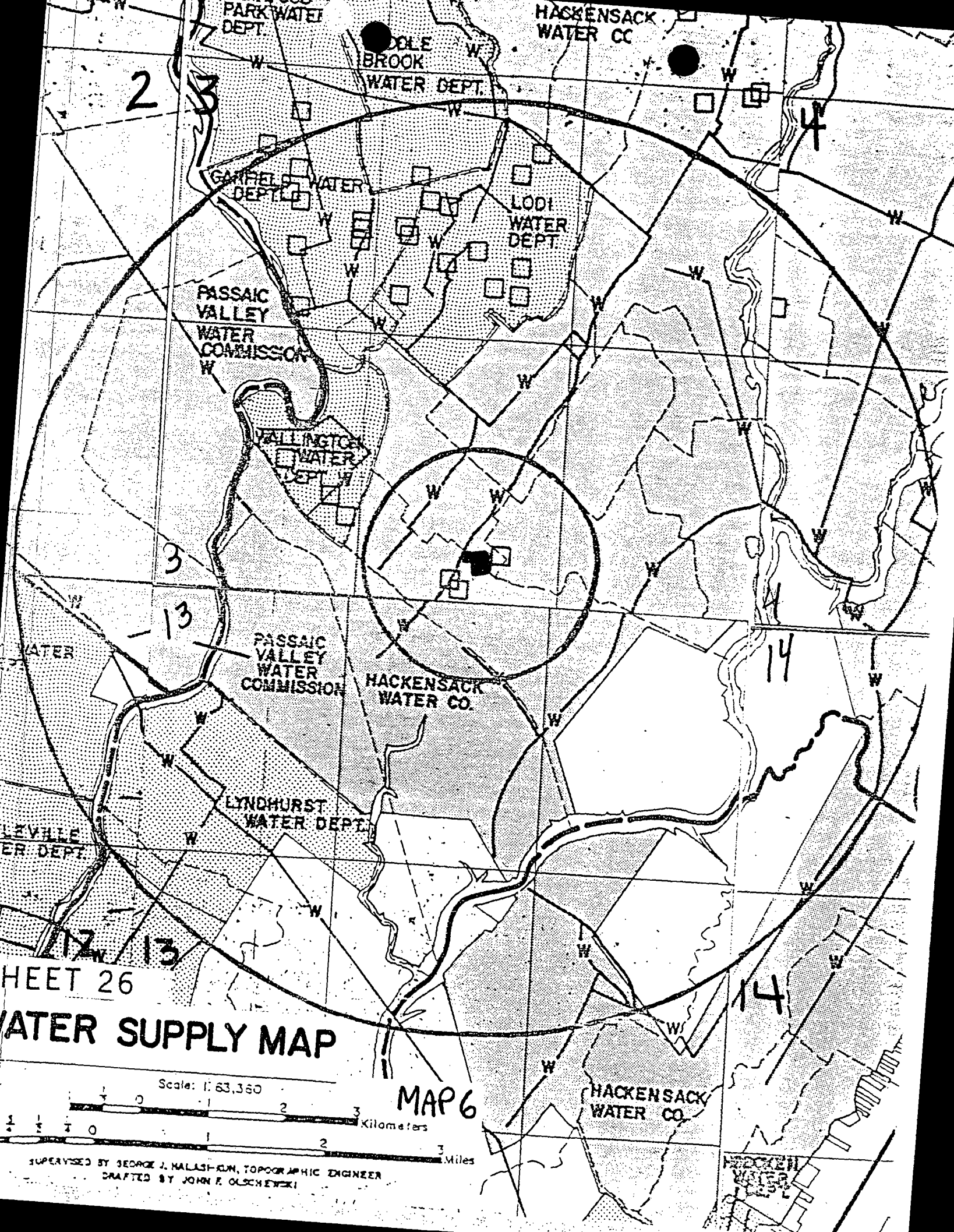
SHEET 26

GEOLOGIC MAP



SUPERVISED BY GEORGE J. HALASH-KUN, TOPOGRAPHIC ENGINEER
DRAFTED BY JOHN E. OLSCHENSKI

MAP 5



SHEET 26

WATER SUPPLY MAP

Scale: 1:63,360

0 1 2 3 Kilometers
0 1 2 3 Miles

MAP 6

SUPERVISED BY GEORGE J. KALLASH-KUN, TOPOGRAPHIC ENGINEER
DRAFTED BY JOHN F. OLSCHESKI

A. Orange, Paterson

B. Passaic-Lower Passaic

C. 1. Little Falls - Recording and non-recording temperature and precipitation gauges

Paterson - Non-recording temperature and precipitation gauges

2. Map No.	Location	Period of Record
35	Passaic River at Little Falls	1897-
36	Slippery Rock Brook at Barbours Pond, West Paterson	7/23/45
27	Slippery Rock Brook at Highland Lake, West Paterson	7/23/45
39	Peckman Brook at Bradford Ave., Cedar Grove	7/23/45
43	Mollyann Brook at Squaw Lake Dam, No. Haledon	7/23/45
45	Mollyann Brook below Redwood Ave., Paterson	7/23/45
46	Passaic River at Paterson	1898-1955
3. 35	Passaic River at Little Falls	1962-
247	Passaic River at Totowa	1964-
254	Peckman River at Cedar Grove	1964
255	Peckman River at West Paterson	1964-

Water Quality Standards: (explained in Atlas Sheet Description)
FW2 except where classified FW3

D. Brunswick Formation (Trb), Basalt Flows (Trbs)

E. 1. Physiographic Province: Piedmont

Subdivision: Triassic Lowlands

Major Topographic Features: Red Sandstone Plain, Watchung Ridges

Elevations (ft. above sea level): ridges 600, valleys 50

Relief (ft.): 550

2. a. Normal Year: 47"

Dry Year: 38"

Wet Year: 59"

b. January: 31°F

July: 74°F

c. 241 days. Last killing frost: 4/25; first killing frost: 10/20

F. Passaic County:

Preakness Valley Park

Garrett Mountain Reservation

Passaic Valley:

Municipal Watershed

Cedar Grove:

Municipal Watershed

H. Westside Park/Van Houten House, Paterson

Great Falls of Paterson and Society of Useful Manufacturers, Historic District,
Paterson

I. Water Well Records

<u>Location</u>	<u>Owner</u>	<u>Year Drilled</u>	<u>Screen Setting or Depth of Casing</u>	<u>Total Depth</u>	<u>g/m Yield</u>	<u>Formation</u>
26-02-142	Twp. of Wayne			?	No test	Q
26-02-174	Marcal Paper Products			?	"	"
26-02-177	"			?	"	"
26-02-221	Grand Union Co.	1955	30	41	90	"
26-02-222	Bluebird Dyeing Corp.			65	550	"
26-02-227	Columbia Piece Die Works			235	100	Trdb
26-02-227	"			100	140	"
26-02-234	Fair Lawn Dept. of Pub.Wks.			500	85	Trb
26-02-265	35 Church St. Corp.	1953	32	200	75	"
26-02-265	Garden Theater	1955	35/8	229	200	"
26-02-273	Hudson Piece Dye Works			450	75	Trbs-Trb
26-02-295	Passaic Rolling Mill			2100	100	Trb
26-02-312	Barbizon Corp.			300	385	"
26-02-321	Boque Electric Co.			345	215	"
26-02-326	Spotless Cleaners	1965	30	400	135	"
26-02-332	Lyons Piece Dye Works			584	85	"
26-02-332	"			600	250	"
26-02-334	Fair Lawn Dept. of Pub.Wks.	1964	40	500	85	"
26-02-335	Boro of Fair Lawn			402	475	"
26-02-335	"			413	500	"
26-02-335	Fair Lawn Dept. of Pub.Wks.	1955	47	400	450	"
26-02-335	"	1954	53	500	75	"
26-02-342	Our Lady of Victories	1954	25	300	112	"
26-02-364	Temple Emanuel	1954	17	150	150	"
26-02-373	Madison Ave. Baptist Church	1964	38	250	276	"
26-02-375	River Pulp Co.			400	350	"
26-02-378	Wright's Diner			220	70	"
26-02-378	Heller Candy Co., Inc.	1962	25	315	157	"
26-02-381	Paterson Board of Education	1965	63	312	30	"
26-02-382	First Natl. Bank & Trust	1953	12	200	125	"
26-02-385	Grand Union Co.			199	85	"
26-02-385	Artson Realty Co.			200	100	"
26-02-391	Okonite Co.			?	375	"
26-02-391	"			?	375	"
26-02-391	"			?	375	"
26-02-399	Food Fair Stores, Inc.	1955	21.5	231	150	"
26-02-416	Colorite Color Plastics	1965	45/50	405	2	Trbs
26-02-424	Container Corp. of America	1958	32	600	65	"
26-02-426	Instrument Specialty Co.	1956	33	150	75	Trb-Trbs
26-02-447	Little Falls Laundry			1012	450	Trbs
26-02-579	Bongiorno, Dr.			250	105	Trb
26-02-589	Bolero	1954	50	350	200	"
26-02-618	Pub. Svc. Elec. & Gas			400	164	"
26-02-621	Manhattan Casting Co.	1959	20	220	150	"
26-02-623	Boque Electric Co.			447	75	"
26-02-624	Garafano & Son, Inc.	1965	24	140	201	"
26-02-633	Independence Plating Co.	1954	21.5	402	230	"
26-02-645	F.E.R. Realty Co., Inc.	1955	32	307	300	"
26-02-653	Natl. Silk & Dyeing Co.			500	125	"
26-02-653	"			600	125	"

26-02-671	Shulton, Inc.	1955	15/28	300	435	Trb
26-02-675	"	1964	20	400	198	"
26-02-676	"	1964	21	300	322	"
26-02-676	Athenia Steel Co.			389	330	"
26-02-687	Eureka Printing Co.	1959	36/40'10"	60	282	"
26-02-688	Federal Sweets & Biscuit Co.			400	280	"
● 26-02-693	Cosley & Co.	1954	45	250	105	"
26-02-763	Bonds Ice Cream, Inc.			157	150	"
26-02-783	Bellvue Theater			250	145	"
26-02-861	Food Fair Stores			207	150	"
26-02-887	Essex Co. Park Commission			224	164	"
26-02-894	Brookdale Beverage	1957	46	430	85	"
26-02-919	Glopro Realty Co., Inc.	1958	27	333	92	"
26-02-922	Texstyle Corp.			605	250	"
26-02-925	Standard Packaging Corp.	1955	57	400	190	"
● 26-02-926	Oneida Paper Prods. Co.			200	100	"
● 26-02-937	Fritzsche Bros.			600	218	"
● 26-02-961	Speedway Car Wash Co.	1960	20	500	80	"
26-02-973	Grand Union Co.			102	80	Q-Trb
26-02-973	Brookliff Realty Co.	1962	24	301	190	Trb
26-02-973	Dumont Laboratories	1958	22	305	335	"
26-02-976	Stier, Albert A., Inc.			350	400	Q-Trb

J. Geodetic Control Survey monuments described
Index Maps 15,21; adjacent Index Maps 14,20

A. Hackensack, Orange, Paterson, Weehawken

B. Hackensack-Hackensack; Passaic-Saddle River, Lower Passaic

C. 2. Map No.	Location	Period of Record
53	Passaic River at Dundee Dam, Clifton	7/23/45
61	Saddle River at Lodi	1923-
62	Weasel Brook at Clifton	1937-1961
419	Fleischer Brook, East Paterson (Market St.)	1967-
423	Sprout Brook at Rochelle Park	1965-
3. 242	Overpeck Creek at Ridgefield	1964-
248	Passaic River at Garfield	1964
264	Saddle River at Garfield	1967-

Water Quality Standards: (explained in Atlas Sheet description)
FW3, TW1 except where classified TW2 or TW3

D. Brunswick Formation

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain
Elevations (ft. above sea level): ridges 150, valleys 0
Relief (ft.): 150

2. a. Normal Year: 45"
Dry Year: 36"
Wet Year: 50"

b. January: 31°F
July: 74°F

c. 245 days. Last killing frost: 4/20; first killing frost: 10/20

F. Bergen County:
Saddle River County Park

H. Von Steuben House, River Edge

I. Water Well Records

<u>Location</u>	<u>Owner</u>	<u>Year Drilled</u>	<u>Screen Setting or Depth of Casing</u>	<u>Total Depth</u>	<u>g/m Yield</u>	<u>Formation</u>
26-03-111	Boro of Fair Lawn			408	380	Trb
26-03-111	"			458	280	"
26-03-112	"			500	143	"
26-03-117	Fair Lawn Dairy Co., Inc.	1955	62	205	125	"
26-03-124	Fair Lawn Water Dept.	1954	47	200	173	"
26-03-127	Fair Lawn Dept. of Pub. Wks.	1955	48/53	400	165	"
26-03-127	Boro of Fair Lawn			338	245	"
26-03-137	Metro Glass			200	120	"
26-03-146	Ellwood Stores Inc.	1952	22	692	100	"
26-03-161	Boro of Wallington			300	304	"
26-03-171	Garfield Boro Water Dept.			330	95	"
26-03-174	Marcas Paper Mills, Inc.	1962	25	35	35	Q
26-03-177	"	1962	23	27	No test	"
26-02-177	"	1962	8	20	"	"
26-03-177	"	1962	22	30	"	"
26-03-178	Sausville, J. & Son			300	100	Trb
26-03-188	Rel Plastic Corp.	1952	79	150	75	"
26-03-211	Boro of Fair Lawn			500	65	"
26-03-217	Farmland Dairies, Inc.	1974	47	635	235	"
26-03-231	All Purpose Roll Leaf	1962	71	350	100	"
26-03-256	Hackensack Water Co.	1965	77'10"	473	250	"
26-03-259	Bijur Lubricating Corp.			175	200	"
26-03-262	Alexander's Dept. Store	1961	25	35	290	Q
26-03-355	Hackensack Water Co.	1959		75	No test	Trb
26-03-382	Lodi Dept. of Public Works			450	175	"
26-03-394	Spartan Typographers Inc.	1956	135	145	75	Q
26-03-394	Hackensack Cable Co.	1958	106	120	171	Trb
26-03-426	East Paterson, Boro of	1954	80	200	180	"
26-03-427	Boro of Wallington			400	350	"
● 26-03-453	City of Garfield	1966	57/77	475	77	"
● 26-03-456	"	1967	33/56	400	328	"
● 26-03-456	"	1966	20/43	710	30	"
● 26-03-457	Whippany Paper Board	1956	54	250	312	"
● 26-03-469	City of Garfield			273	95	"
● 26-03-469	"			320	130	"
● 26-03-469	"			165	400	"
● 26-03-483	"	1966	21/40	400	25	"
● 26-03-485	Botany Worsted Mills			81	7	"
● 26-03-489	City of Garfield	1967	61.5	276	No test	"
● 26-03-493	"			326	89	"
● 26-03-496	Laurel Co.			500	100	"
● 26-03-497	Heyden Chemical Works			375	90	"
● 26-03-535	Aquarium, Inc.	1963	22	300	172	"
● 26-03-536	Maywood Chemical Co.			220	400	"
● 26-03-536	Citro Chemical Co.			220	400	"
● 26-03-538	Lodi, Boro of			403	600	"
● 26-03-542	City of Garfield	1968	15/35	405	405	"
● 26-03-546	Lodi, Boro of			300	170	"
● 26-03-548	"			?	135	"
● 26-03-548	"			200	125	"
● 26-03-554	Lodi Dept. of Public Works	1965	20/40	510	100	"

● 26-03-557	Washine Chemical Co.	1966	29'4"/ 46'10-1/2"	400	100	Trb
● 26-03-561	Boro of Lodi			?	295	"
● 26-03-563	Lodi Shopping Center	1960	22	300	290	"
● 26-03-563	"	1956	20'8"	301	350	"
● 26-03-563	Muscarelle, J.L., Inc.	1966	32	400	159	"
● 26-03-566	Interchemical Corp.			435	187	"
● 26-03-566	Spiegel Mfg. Corp.	1969	34/43	300	237	"
● 26-03-567	Master Etching Corp.	1965	29	400	105	"
● 26-03-575	Boro of Lodi	1954	31'5"/ 53'1"	459	157	"
● 26-03-577	Yoo-Hoo Beverage Co.	1959	22	303	95	"
● 26-03-581	Boro of Lodi			?	145	"
● 26-03-582	Lodi Dept. of Public Works	1965	36/56	450	175	"
● 26-03-586	Boro of Lodi			?	109	"
● 26-03-591	"	1966	28/48	470	285	"
● 26-03-594	"			350	85	"
26-03-623	Hackensack Water Co.			189	215	Q
26-03-632	"	1954	130/ 148'8"	168	1700	"
26-03-632	"	1955	168	190	1420	"
● 26-03-659	Bowler City	1958	120	400	108	Trb
● 26-03-667	Food Fair Stores	1954	270	525	55	"
● 26-03-687	Spinnerin Yarn	1965	110	400	55	"
● 26-03-691	Seilheimer Beverage Co.	1958	115	415	76	"
● 26-03-715	Farmland Dairy Inc.	1968	12/50	400	25	"
● 26-03-728	Paterson Parchment Paper Co.			378	53	"
● 26-03-731	Prescott, J.L. & Co.	1962	90	500	25	"
● 26-03-731	Tendebrands Frozen Foods	1950	76	230	100	"
● 26-03-756	Boro of Wallington	1964	118.5	300	30	"
● 26-03-768	"	1965	40	400	217	"
● 26-03-793	"			300	330	"
● 26-03-816	Wright Aeronautical Eqpt.	1957		340	515	"
● 26-03-817	Tube Reducing Corp.	1954	20	397	90	"
● 26-03-817	"	1954	31	392	20	"
● 26-03-859	Terminal Construction Co.	1952	20	145	120	"
● 26-03-888	Hackensack Water Co.	1955	86	86	300	Q
● 26-03-888	"	1955		263	No test	Q
● 26-03-888	Lancaster Chemical Co.	1963	311/287	400	55	Trb
● 26-03-894	Hackensack Water Co.	1955		243	60	Q
● 26-03-899	World Plastic Extruders, Inc.	1966	53	200	100	Trb
● 26-03-924	DeTroy Press, Inc.	1956	67	150	95	"
● 26-03-962	Stage Coach Inn			565	110	"

J. Geodetic Control Survey monuments described
Index Maps 15,21; adjacent Index Map 16

A. Central Park, Hackensack, Weehawken, Yonkers

B. Hackensack-Hackensack, Hudson-Hudson

C. 2. Map No.	Location	Period of Record
414	Metzler Brook at Englewood	1965-
3. 239	Hackensack River at Hackensack	1964-
240	Hackensack River at Little Ferry	1964-
241	Overpeck Creek at Ridgefield	1964-
242	Berrys Creek at Moonachie	1964-

Water Quality Standards: (explained in Atlas Sheet description)

FW2, TW1 except where classified FW3 or TW2

D. Brunswick Formation (Trb), Stockton Formation (Trs), Diabase (Trdb).

E. 1. Physiographic Province: Piedmont

Subdivision: Triassic Lowlands

Major Topographic Features: Red Sandstone Plain, Palisades Ridge

Elevations (ft. above sea level): ridges 450, valleys 0

Relief (ft.): 450

2. a. Normal Year: 44"

Dry Year: 36"

Wet Year: 51"

b. January: 32°F

July: 74°F

c. 246 days. Last killing frost: 4/20; first killing frost: 10/20

F. Bergen County:

Overpeck County Park and Golf Course

G. Palisades Interstate Park Commission - Palisades Interstate Park

H. Palisades Interstate Park

I. Water Well Records

<u>Location</u>	<u>Owner</u>	<u>Year</u> <u>Drilled</u>	<u>Screen</u> <u>Setting</u> <u>or Depth</u> <u>of Casing</u>	<u>Total</u> <u>Depth</u>	<u>g/m</u> <u>Yield</u>	<u>Formation</u>
26-04-144	Silver Park Record Co.	1958	44	335	185	Trb
26-04-174	Federated Dept. Stores Inc.	1959	117'11"	147	254	Q
26-04-196	Englewood Hospital Assn.	1968	53'3"	230	222	Trb
26-04-212	Food Fair Stores	1958	25	300	172	"
26-04-227	Patterson, H & Sons	1966	20	198	225	"
26-04-233	Grand Union Co.			50	82	Trs
26-04-296	Englewood Hospital Assn.			218	89	"
26-04-317	Clinton Inn	1963	39	107	402	"
26-04-432	Grand Union Co.	1953	35	150	75	Trb
26-04-451	Home Town Laundries, Inc.			240	150	"
● 26-04-474	Bogota Water Co.			275	160	"
26-04-516	Tenafly Enterprises	1970	33	168	70	?
26-04-543	Spiegel Mfg. Corp.	1963	135	145	150	Q
26-04-556	Scharf, Charles	1955	64	250	100	Trs
26-04-557	Cart-Wright, Inc.	1960	115	298	100	"
26-04-744	Flinkote Co.	1955	38	38	No test	Q
26-04-745	Hygenic Ice Co.			750	7	Trb
26-04-767	Schonbrunn Co., Inc.	1965	40	291	60	Trs
26-04-795	J.G. Knits, Inc.	1972	50	300	250	Trb
26-04-789	Grove Pine Corp.	1966	88	315	200+	Trs
26-04-799	Great Bear Spring Co.	1965	30	95	178	Trb
26-04-816	Leonia Board of Education	1968	58	350	52	Trs

J. Geodetic Control Survey monuments described
Index Maps 15,16,21

A. Elizabeth, Orange

B. Arthur Kill-Elizabeth, Rahway; Hackensack-Hackensack; Passaic-Lower Passaic

C. 2. Map No.	Location	Period of Record
63	Second River at Brighton Ave., East Orange	7/23/38
64	Second River at Bloomfield Ave., Bloomfield	7/23/38
65	Second River at Belleville	1937-1961
66	Second River at Newark Pipe, Belleville	7/23/38
67	Elizabeth River at Irvington	1931-1938
3. 262	Passaic River at Harrison	1967-1971

Water Quality Standards: (explained in Atlas Sheet description)
FW3, TW2 except where classified TW3

D. Brunswick Formation (Trb), Basalt Flows (Trbs)

E. 1. Physiographic Province: Piedmont

Subdivision: Triassic Lowlands

Major Topographic Features: Red Sandstone Plain, Watchung Ridges

Elevations (ft. above sea level): ridges 650, valleys 0

Relief (ft.): 650

2. a. Normal Year: 45"

Dry Year: 37"

Wet Year: 55"

b. January: 31°F

July: 74°F

c. 243 days. Last killing frost: 4/15; first killing frost: 10/20

F. Bergen County:

Riverside County Park and Hackensack River Area

Essex County:

Eagle Rock Reservation

Branch Brook Park

H. Montclair Railroad Terminal, Montclair

Israel Crane House, Montclair

Sydenham House, Newark

Kruegar Mansion, Newark

Penn Station, Newark

First Baptist Peddie Memorial Church, Newark

Saint James A.M.E., Newark

Saint Stephan's Church, Newark

Saint James's Church, Newark

Saint Mary's Church, Newark

Saint Barnabas, Newark

Saint Columba's Church, Newark

Saint John's Church, Newark

Saint Patricks Pro Cathedral, Newark

Queen of Angels Church, Newark

H. (contd.)

Cathedral Evangelica Reformada, Newark
 New Point Baptist Church, Newark
 South Park Presbyterian Church, Newark
 Pan American C.M.A. Church, Newark
 First United Methodist Church, Newark
 House of Prayer Episcopal Church and Rectory, Newark
 Grace Church, Newark
 North Reformed Church, Newark
 The Old First Presbyterian Church, Newark
 Trinity Episcopal Church, Newark

I. Water Well Records

<u>Location</u>	<u>Owner</u>	<u>Year Drilled</u>	<u>Screen Setting or Depth of Casing</u>	<u>Total Depth</u>	<u>g/m Yield</u>	<u>Formation</u>
26-12-157	Hahne & Co.			505	240	Trb
26-12-164	Quadrel, Michael	1955	18	151	75	"
26-12-194	Town of Montclair	1966	21/41	300	950	"
26-12-194	Montclair Water Bureau	1966	16/36	300	470	"
26-12-218	Glen Ridge Country Club	1967	40	300	200	"
26-12-222	Bloomfield Savings Bank	1956		145	100	"
26-12-313	Hoffman-LaRoche			902	128	"
● 26-12-327	Food Fair Stores, Inc.			209	70	"
● 26-12-334	Kingsland's Paper Mills			400	125	"
● 26-12-335	Wiggins Plastics, Inc.	1963	24'-3/12"	378	180	"
● 26-12-338	Federal Telecommunications Lab	1958	39'6"	500	114	"
26-12-386	Liquid Carbonic Corp.			518	100	"
26-12-389	National Yeast Corp.			512	126	Trbs
● 26-12-394	Federal Leather Co.			802	60	Trb
26-12-417	Schering Corp.			478	127	"
26-12-423	Kidde W. & Co.			400	400	"
26-12-448	Orange Dairy Co.			250	75	"
26-12-449	City of Orange	1970	61'5"	500	524	"
26-12-478	"	1971	56	506	500	"
26-12-486	Colonial Life Ins. Co.			357	323	"
26-12-513	Leonora Corp.	1957	33	200	70	"
26-12-526	Eastern Tool & Mfg. Co.			550	126	"
26-12-537	National Grain & Yeast Corp.			457	125	"
26-12-545	MGM Records (Div. of Loews)	1959	23	211	115	"
26-12-545	"	1960	36	579	120	"
26-12-547	"			400	275	"
26-12-557	Warner Mfg. Co.			395	220	"
26-12-566	Tiffany & Co.			800	50	"
26-12-577	Bloomfield Moulding Co.	1968	18	350	200	"
26-12-622	Mansol Ceramics Co.			250	100	"
26-12-644	Droll Molding Co., Inc.	1962	50	300	80	"
26-12-655	Summit Chemical Prod. Corp.			414	150	"
26-12-657	Crowhurst, A.J. & Sons			83	325	Q
26-12-675	Aluminum Finishing Co.			150	100	Trb
26-12-682	North Newark Ice Co.			250	123	"
26-12-695	V.H. Swenson Co.	1962	49	40	170	"

26-12-723	Mountain Ice Co.			634	300	Trb
26-12-729	Vinton Apartments Inc.	1955	52	255	160	"
26-12-747	Columbia Theaters, Inc.	1953	26	312	140	"
26-12-751	Woolworth & Co.	1965	76'10"	300	80	"
26-12-758	Food Fair Stores	1956	73	214	180	"
26-12-783	Pabst Brewing Co.			535	300	"
26-12-812	Ward Baking Co.			200	111	"
26-12-822	Crabb, W. & Co.			600	300	"
26-12-827	Trent Hat Corp.			200	150	"
26-12-839	Reid Ice Cream Co.			600	100	"
26-12-846	Fagin Brothers Coal Yard			150	100	"
26-12-864	Barton Realty Co., Inc.	1965		385	100	"
26-12-869	Alderney Dairy Co.			450	113	"
26-12-893	Ballantine & Son Ale			1200	0	"
26-12-896	Mutual Benefit Life Ins.Co.	1965	44'8"	312	219	"
26-12-898	Prudential Life Ins. Co.			1225	15	"
26-12-918	Abbey Record Co.	1962	24	697	135	"
26-12-921	Two Guys from Harrison	1959	99	405	628	"
26-12-933	DuPont			202	148	"
26-12-942	N.J. Rolling Mills	1963	99	400	20	"
26-12-944	Harrison Supply Co.	1966	88	174	50	"
26-12-948	Mountain Ice & Fuel Co.			350	122	"
26-12-957	Doelger Brewery			400	175	"
26-12-966	Verzelanb, N.	1959	146	235	150	"
26-12-976	Driver-Harris Co.	1946	241	337	600	Q
26-12-994	Acme Refining Co.	1960	144	500	150	Trb
26-12-996	Lister Brothers			1200	0	"
26-12-998	Stanley Tools			637	125	"

J. Geodetic Control Survey monuments described
Index Maps 21,26; adjacent Index Maps 20,25

A. Jersey City, Orange, Weehawken

B. Hudson-Hudson; Hackensack-Hackensack; Passaic-Lower Passaic

C. 3. Map No.	Location	Period of Record
242	Berry's Creek at Moonachie, Moonachie Ave.	1964-
263	Hackensack River at Harrison, Belleville Tpk.	1967-

Water Quality Standards: (explained in Atlas Sheet description)
TW2 except where classified TW3

D. Brunswick Formation (Trb), Stockton Formation (Trs), Diabase (Trdb),
Manhattan Schist (Oms)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain, Palisades Ridge,
Hackensack Meadows
Elevations (ft. above sea level): ridges 250, valleys 0
Relief (ft.): 250

2. a. Normal Year: 43"
Dry Year: 36"
Wet Year: 53"

b. January: 32°F
July: 74°F

c. 245 days. Last killing frost: 4/10; first killing frost: 10/20

F. Bergen County:
Riverside County Park and Hackensack River Area

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
● 26-13-157	Pennick, S.B. Co.	1966	42	352	180/200	Trb
● 26-13-177	Breyer Ice Cream Co.			702	200	"
● 26-13-195	Omni Chemical Corp.	1968	39	300	157	"
● 26-13-195	Sika Chemical Corp.	1966	25	302	220	"
● 26-13-214	Trubeck Laboratories	1956	191	201	105	Q
● 26-13-215	Beckton & Dickinson	1966	118	363	251	Trb
● 26-13-216	Marijon Piece Dye Co.	1965	45	285	135	"
● 26-13-226	Hackensack Water Co.	1954	92'11"	103	No test	Q
● 26-13-234	U.S. Printing Ink Co.	1965	70	220	60	Trb
● 26-13-268	Top Notch Plating Co.	1965	21	300	190	"
● 26-13-298	Alpha Refining Co.			400	115	"
● 26-13-415	Minit-Man Auto Car Wash	1957	39	180	90	"
26-13-447	Food Fair Stores, Inc.	1956	30	320	82	"
26-13-499	Pfaff Tool & Mfg. Co.	1963	66.5	740	145	"

26-13-598	Erie Railroad			184	200	Trs
26-13-598	"			182	4	Trb
●26-13-615	Keystone Metal Finishers	1968	20	200	312	"
●26-13-642	"	1950	18	200	76	"
●26-13-655/6	"	1960	21	150	150	Trs
26-13-668	Kiesewetter			380	0	Trdb-Trs
26-13-695	North Bergen Realty Co.			72	90	Q
26-13-775	Fairmount Chemical Co.	1965	114	300	300	Trb
26-13-775	United Shellac Co.			475	200	"
26-13-921	Miller & Co.			135	925	Q
26-13-924	DeAngelis Packing Co.	1948		45	0	"
26-13-983	Mehl, John & Co.	1913		1020	150	Trdb
26-13-983	"	1923		1050	40	"
26-13-984	Mountain Ice Co.			950	0	Trdb-PG
26-13-987	Steel Laundry Co.			1028	130	" "
26-13-994	General Refrigerator			1350	0	Trs-PG
26-13-995	Columbia Amusement Park			200	100	Trs

J. Geodetic Control Survey monuments described
Index Maps 21,26; adjacent Index Map 16

A. Central Park, Jersey City, Weehawken

B. Hackensack-Hackensack, Hudson-Hudson

C. 2. Map No. Location Period of Record
 415 Wolf Creek at Ridgefield 1965-

Water Quality Standards: (explained in Atlas Sheet description) TW2

D. Brunswick Formation (Trb), Stockton Formation (Trs), Diabase (Trdb),
 Manhattan Schist (Oms), Serpentine (sp)

E. 1. Physiographic Province: Piedmont
 Subdivision: Triassic Lowlands
 Major Topographic Features: Red Sandstone Plain, Palisades Ridge,
 Hackensack Meadows
 Elevations (ft. above sea level): ridges 250, valleys 0
 Relief (ft.): 250

2. a. Normal Year: 47"
 Dry Year: 39"
 Wet Year: 55"

b. January: 32°F
 July: 74°F

c. 242 days. Last killing frost: 4/20; first killing frost: 10/20

I. Water Well Records

<u>Location</u>	<u>Owner</u>	<u>Year Drilled</u>	<u>Screen Setting or Depth of Casing</u>	<u>Total Depth</u>	<u>g/m Yield</u>	<u>Formation</u>
26-14-118	Colorite Color Plastics	1968	52/62	425	20	Trb
26-14-129	Merrill Corp.			300	90	Trs
26-14-146	Gibraltar Corrugated Paper Co.	1952	136	170	No test	Trb
26-14-147	Armour Soap Works			116	0	Q
26-14-148	"			108	265	"
26-14-173	"			330	14	Trs
26-14-182	Gibraltar Corrugated Paper Co.	1954	105	122	300	Q
26-14-183	Consolidated Bleaching	1950	93	528	44	Trdb
26-14-742	Sweets Co. of America	1955	47'1"	400	105	Trs
26-14-744	Chocolat Menier			500	125	"
26-14-771	Progressive Silk Finishing Co.			500	125	"

J. Geodetic Control Survey monuments described
 Index Maps 21,16,26

LATITUDE 405012
LONGITUDE 740636

DRAFT

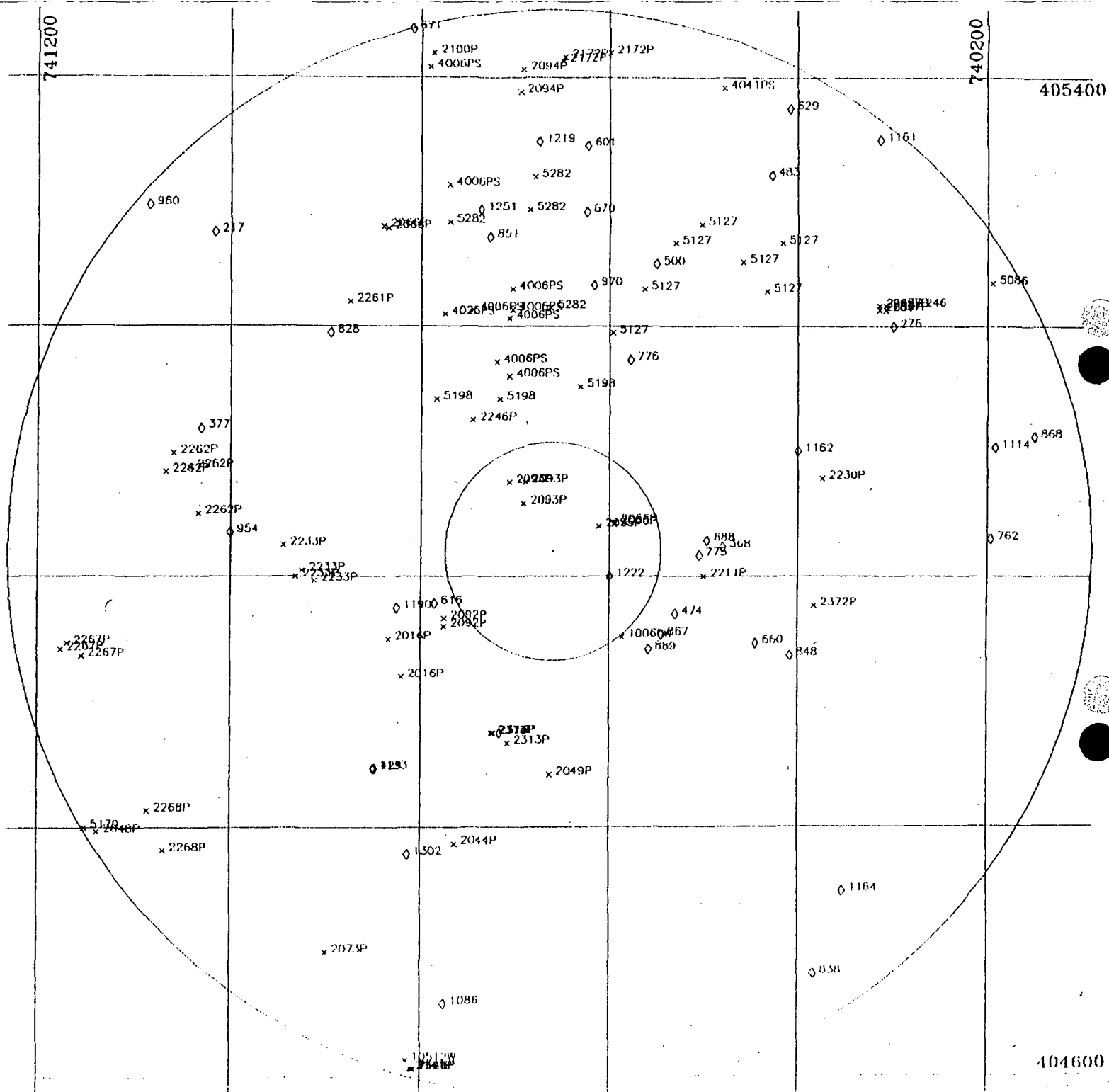
SCALE: 1:63,360
(1 Inch = 1 Mile)

* WATER WITHDRAWAL POINTS
O NUGS CASE INDEX SITES
1 MILE AND 5 MILE RADII INDICATED

NGS CASE INDEX DATA RETRIEVED FROM:
NEW JERSEY GEOLOGICAL SURVEY
ON 12/22/87

PLAT PRODUCED BY:
NJDEP
DIVISION OF WATER RESOURCES
BUREAU OF WATER ALLOCATION
CN-11291
TRENTON, NJ 08625

DATE: 01/24/81



SUBJECT TO REVISION

SITENUM	NAME	LAT	LON	DISTANCE	CONTAM	RHCODE1	RHCODE2	STATUS1	STATUS2
174	PENOLD CORP., LYNDHURST, BERGEN CO.	404845	740710	1.7	12	0110	3070	2	J
217	GARDEN STATE PARKWAY & RT. 46, CLIFTON, PASSAIC CO.	405245	741010	4.3	53	130	120	0	
276	GREAT BEAR SPRING CO., BERGEN CO.	405200	740300	3.8	53	0103	3070	2	
348	BEARY'S CREEK PROJECT, WOODRIDGE, BERGEN CO.	405014	740448	1.6	38	100	0	1	D
377	SNEPOD TUBE, CLIFTON, PASSAIC CO.	405111	741018	3.4	57	3070	0	0	
429	SAL REX, NUTLEY, ESSEX CO.	404828	740629	2.6	00	0130	3070	1	
474	U O P JOHNSON, EAST RUTHERFORD, BERGEN CO.	404942	740518	1.3	00	103	101	1	E
483	INNOVAT CHEMICAL, LODI, BERGEN CO.	405313	740417	4.0	00	100	3070	1	B
500	LODI MUNICIPAL WELL V.O. CONTAM, LODI, BERGEN CO. (SEE ALSO 629)	405230	740530	2.8	0	120	3070	1	E
601	CURCIO SCRAP METALS, GARFIELD, BERGEN CO.	405327	740614	3.7	50	130	3070	1	
616	GIVALDIAN CORP., CLIFTON, PASSAIC CO.	404947	740751	1.2	00	130	3070	1	E
629	LODI/MAYWOOD RADIOLOGICAL CONTAM., BERGEN CO. (SEE ALSO 500)	405345	740405	4.6	67	120	3070	1	E
640	SCIENTIFIC CHEMICAL PROCESSING, CARLSTADT, BERGEN CO.	404928	740427	2.1	00	0110	3070	1	C
670	SKETCHLEY SERVICES, BERGEN CO.	405255	740615	3.1	00	0110	3070	1	G
671	MORTON THICKOL INC., PATERSON, PASSAIC CO.	405424	740805	5.0	13	130	3070	2	H
688	DIAMOND SHAMROCK, CARLSTADT, BERGEN CO.	405017	740458	1.4	50	103	101	1	
762	ANDRILL OIL CORP.—LITTLE FERRY TER	405018	740158	4.1	00	0103	0101	1	B
775	COSAN CHEMICAL CORP., CARLSTADT, BERGEN CO.	405010	740503	1.4	00	0120	3070	1	A
776	CURTISS-WRIGHT CORP	405144	740547	1.9	00	3070	0	1	A
822	ROUGHKEEPSTE FINISHING CORP (2ND CASE?). CLIFTON	405157	740857	2.9	00	0103	3070	1	B
838	SQUARE D CO., SECADULUS, BERGEN CO.	404649	740350	4.6	00	0110	3070	1	B
848	MURAC CO—DIV OF SEAGRAME COATING, CARLSTADT, BERGEN CO.	404922	740405	2.4	00	0103	0101	1	B
851	WHIFFANY PAPER BOARD CO, INC	405243	740716	2.9	00	0103	3070	1	B
867	GENERALFOAM CORP, E. RUTHERFORD, BERGEN CO.	404932	740527	1.3	63	0103	0101	1	
868	REXAD AT MAIN & PARK ST., RIDGEFIELD PARK, BERGEN CO.	405107	740130	4.6	51	3070	0	1	B
889	J.B.M.T. PRINTING, E. RUTHERFORD, BERGEN CO.	404925	740535	1.3	00	0101	0100	1	B
954	ROOF RICHARD'S FURNITURE, MONTCLAIR, ESSEX CO.	405021	741000	3.0	0	0140	3070	1	C
960	STEVES AUTO CENTER, CLIFTON, PASSAIC CO.	405258	741050	4.9	0	0	0	3	
970	E.C. ELECTROPLATING, GARFIELD, BERGEN CO.	405220	740610	2.5	0	0	0	3	
1086	G M Z CONCRETE, NORTH ARLINGTON, BERGEN CO.	404635	740745	4.3	53	0103	0	1	B
1114	RIDGEFIELD PARK EXXON, RIDGEFIELD PARK, BERGEN CO.	405102	740155	4.2	63	0103	0100	1	G
1133	HARBOT TOLL AND OIL, NUTLEY, ESSEX CO.	404828	740830	2.6	53			3	
1161	STE-SYLVANIA, TETERBORO, BERGEN CO.	405330	740308	4.9	53			3	
1162	UNITED WIRE HANGER CORP., HASEROCK HEIGHTS, BERGEN CO.	405100	740400	2.5	52			3	
1164	PLAZA ANDCO/HECKLEY'S EXXON, SECADULUS, HUDSON CO.	404729	740332	4.1				3	
1190	ITT AVIONICS, 100 KINGSLAND RD., CLIFTON, PASSAIC CO.	404945	740815	1.5	04			3	
1219	EMPIRE OVERALL, ELMWOOD PARK, BERGEN CO.	405329	740645	3.8	00	0110	3070	1	C
1222	WALLINGTON WATER DEPT., WALLINGTON, BERGEN CO.	405000	740600	0.6	00	0120	3070	1	C
1246	STONE NYCAL, S. HACKENSACK, BERGEN CO.	405210	740249	4.0	63	0100	3070	1	C
1251	GARFIELD WATER DEPARTMENT, GARFIELD, BERGEN CO.	405256	740722	3.2	01	0120	3070	1	
1302	RESEARCH ORGANIC/INORGANIC CHEM CORP, BELLEVILLE, ESSEX CO.	404747	740808	3.1	00	0130	3070	1	E

Number of Observations: 41

SITENUM	NAME	LAT	LON	DISTANCE	CONTAM	FMCD001	FMCD002	STATUS1	STATUS2
950	STEVES AUTO CENTER, CLIFTON, PASSAIC CO.	405258	741050	4.9	0	0	0	3	
377	SWEEPOT TUBE, CLIFTON, PASSAIC CO.	405111	741018	3.4	57	3070	0	0	
217	GARDEN STATE PARKWAY & RT. 46, CLIFTON, PASSAIC CO.	405245	741010	4.3	53	130	120	0	
954	POOR RICHARD'S FURNITURE, MONTCLAIR, ESSEX CO.	405021	741000	3.0	0	0140	3070	1	C
828	FOURKEEPSIE FINISHING CORP (2ND CASE?), CLIFTON	405157	740657	2.9	00	0103	3070	1	B
1133	HARBOT TOLL AND OIL, NUTLEY, ESSEX CO.	404828	740630	2.6	53			3	
429	SIL REX, NUTLEY, ESSEX CO.	404828	740829	2.6	00	0130	3070	1	
1190	ITT AVIONICS, 100 KINGSLAND RD., CLIFTON, PASSAIC CO.	404945	740815	1.5	04			3	
1302	RESEARCH ORGANIC/INORGANIC CHEM CORP, BELLEVILLE, ESSEX CO.	404747	740808	3.1	00	0130	3070	1	E
671	MORTON THICKOL INC., PATERSON, PASSAIC CO.	405424	740805	5.0	13	130	3070	2	H
616	BIVALDAN CORP, CLIFTON, PASSAIC CO.	404947	740751	1.2	00	130	3070	1	E
1086	G M Z CONCRETE, NORTH ARLINGTON, BERGEN CO.	404635	740745	4.3	53	0103	0	1	B
1251	GARFIELD WATER DEPARTMENT, GARFIELD, BERGEN CO.	405256	740722	3.2	01	0120	3070	1	
651	WHITFANY PAPER BOARD CO, INC	405243	740716	2.9	00	0103	3070	1	B
174	PENICK CORP., LYNDBURST, BERGEN CO.	404845	740710	1.7	12	0110	3070	2	J
1219	EMPTRE OVERALL, ELMWOOD PARK, BERGEN CO.	405329	740645	3.8	00	0110	3070	1	C
670	SKETCHLEY SERVICES, BERGEN CO.	405255	740615	3.1	00	0110	3070	1	G
601	CURCIO SCRAP METALS, GARFIELD, BERGEN CO.	405327	740614	3.7	50	130	3070	1	
970	E.C. ELECTROPLATING, GARFIELD, BERGEN CO.	405220	740610	2.5	0	0	0	3	
1222	WALLINGTON WATER DEPT., WALLINGTON, BERGEN CO.	405000	740600	0.6	00	0120	3070	1	C
776	CURTISS-WRIGHT CORP	405144	740547	1.9	00	3070	0	1	A
889	J.B.M.T. PRINTING, E. RUTHERFORD, BERGEN CO.	404925	740535	1.3	00	0101	0100	1	B
500	LODI MUNICIPAL WELL V.O. CONTAM, LODI, BERGEN CO. (SEE ALSO 629)	405230	740530	2.8	0	120	3070	1	E
867	GENERALFOAM CORP, E. RUTHERFORD, BERGEN CO.	404932	740527	1.3	63	0103	0101	1	
474	U O P JOHNSON, EAST RUTHERFORD, BERGEN CO.	404942	740518	1.3	00	103	101	1	E
775	COSAN CHEMICAL CORP, CARLSTADT, BERGEN CO.	405010	740503	1.4	00	0120	3070	1	A
688	DIAMOND SHAMROCK, CARLSTADT, BERGEN CO.	405017	740458	1.4	50	103	101	1	
348	BERRY'S CREEK PROJECT, WOODRIDGE, BERGEN CO.	405014	740448	1.6	38	100	0	1	B
660	SCIENTIFIC CHEMICAL PROCESSING, CARLSTADT, BERGEN CO.	404928	740427	2.1	00	0110	3070	1	C
483	INMONT CHEMICAL, LODI, BERGEN CO.	405313	740417	4.0	00	100	3070	1	B
529	LODI/MAYWOOD RADIOLOGICAL CONTAM., BERGEN CO. (SEE ALSO 500)	405345	740405	4.6	67	120	3070	1	E
848	VORAC CO—DIV OF SEAGRAVE COATING, CARLSTADT, BERGEN CO.	404922	740405	2.4	00	0103	0101	1	B
1162	UNITED WIRE HANGER CORP. HASBROUCK HEIGHTS, BERGEN CO.	405100	740400	2.5	52			3	
808	SQUARE D CO, SECAUCUS, BERGEN CO.	404649	740350	4.6	00	0110	3070	1	B
1164	PLAZA AMOCO/KECKEY'S EXXON, SECAUCUS, HUDSON CO.	404729	740332	4.1				3	
1161	GTE-SYLVANIA, TETERBORD, BERGEN CO.	405330	740308	4.9	53			3	
276	GREAT BEAR SPRING CO., BERGEN CO.	405200	740300	3.8	53	0103	3070	2	
1246	STONE NYCAL, S. HACKENSACK, BERGEN CO.	405210	740249	4.0	63	0100	3070	1	C
762	ANDRILL OIL CORP—LITTLE FERRY TER	405018	740158	4.1	00	0103	0101	1	B
1114	RIDGEFIELD PARK EXXON, RIDGEFIELD PARK, BERGEN CO.	405102	740155	4.2	63	0103	0100	1	G
888	TEXACO AT MAIN & PARK ST., RIDGEFIELD PARK, BERGEN CO.	405107	740130	4.6	51	3070	0	1	B

Number of Observations: 41

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	PANTASOTE	405204	740704	T	2.2	31	02		SP		
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	CHELTON CO	405208	740702	T	2.3	31	02		SP		
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	PASSAIC IN	405218	740702	T	2.4	31	02		SP		
2094P	D.A.K. MANUFACTURING CORP.	2600537	4	405353	740657	F	4.2	03	11	250	GTRB		50
2093P	ORVAL KENT FOOD COMPANY, INC.	2604382	3	405035	740655	T	0.5	03	12	470	GTRB		430
2094P	D.A.K. MANUFACTURING CORP.	2600466	1	405404	740655	F	4.4	03	11		GTRB		
2094P	D.A.K. MANUFACTURING CORP.	4600210	2	405404	740655	U	4.4	03	11		GTRB		
2094P	D.A.K. MANUFACTURING CORP.	4600211	3	405404	740655	U	4.4	03	11		GTRB		
2093P	ORVAL KENT FOOD COMPANY, INC.	2604341	2	405045	740654	S	0.7	03	12	300	GTRB		150
5082	GARFIELD WATER DEPARTMENT	2604016	1A	405256	740651		3.1	03	21	400	GTRB		300
5082	GARFIELD WATER DEPARTMENT	2604063	2	405312	740648	U	3.4	03	21	475	GTRB		150
2049P	SIKA CORPORATION	2604036	1	404825	740638		2.0	03	32	302	GTRB		220
5082	GARFIELD WATER DEPARTMENT	2604010	5	405209	740638		2.2	03	21	276	GTRB		150
2172P	PARK 80-KIDDIE ASSOCIATES	2604234	1	405408	740630	S	4.5	03	57	400	GTRB		300
2172P	PARK 80-KIDDIE ASSOCIATES	2604235	2	405410	740629	S	4.6	03	57	400	GTRB		300
2172P	PARK 80-KIDDIE ASSOCIATES	2605301	3	405410	740629	S	4.6	03	57	300	GTRB		0
5198	WALLINGTON BOROUGH	2603933	DUL	405131	740619		1.5	03	65	400	GTRB		140
2055P	GANES CHEMICAL, INC.	2600005	4	405024	740607	F	0.5	03	05	526	GTRB		80
2172P	PARK 80-KIDDIE ASSOCIATES	2604104	4	405412	740600	S	4.6	03	57	300	GTRB		
5127	LODI BOROUGH	2601037	TERRACE	405157	740558		2.1	03	31	607	GTRB		190
2055P	GANES CHEMICAL, INC.	4600080	2	405026	740557	F	0.6	03	05	490	GTRB		200
2055P	GANES CHEMICAL, INC.	2604277	5	405025	740557	F	0.6	03	05	430	GTRB		30
10060W	CARLSTADT-E. RUTHERFORD B.O.E	2603920	1	404931	740552	F	1.0	03	12	225	GTRB		125
5127	LODI BOROUGH	2601010	GARFIELD	405218	740538		2.6	03	31	459	GTRB		150
5127	LODI BOROUGH	4600068	ARNOT ST.	405240	740518		3.1	03	31	300	GTRB		150
5127	LODI BOROUGH	4600069	4	405249	740502		3.3	03	31	307	GTRB		255
5127	LODI BOROUGH	4600070	5	405249	740502		3.3	03	31	300	GTRB		355
5127	LODI BOROUGH	4600071	7	405249	740502		3.3	03	31	332	GTRB		355
2211P	HENKEL PROCESS CHEMICALS, INC.	4600125	1	405000	740500		1.4	03	05	170	BOSD		600
4041PS	STEPAN CHEMICAL COMPANY	SADDLE RIVER		405355	740447		4.6	03	54		SPSAD		2000
5127	LODI BOROUGH	2603183	CORABELLE	405231	740435		3.2	03	31	470	GTRB		200
5127	LODI BOROUGH	4600072	LAWRENCE	405217	740420	U	3.1	03	31	373	GTRB		500
5127	LODI BOROUGH	4600073	COLUMBIA	405240	740410	U	3.5	03	31	409	GTRB		375
2372P	YOD-HOO CHOCOLATE BEV. CORP.	2602067	1	404946	740350		2.5	03	06	303	GTRB		70
2372P	YOD-HOO CHOCOLATE BEV. CORP.	2602933	2	404946	740350		2.5	03	05	391	GTRB		50
2372P	YOD-HOO CHOCOLATE BEV. CORP.	2603053	3	404946	740350		2.5	03	05	378	GTRB		55
2330P	HOFFMAN LAROCHE INC.	2406268	1	405047	740345	T	2.6	41	03	140	SD		700
2057P	SPINNERIN YARN CO., INC.	4600177	0	405208	740309	F	3.7	03	59	404	GTRB		65
2057P	SPINNERIN YARN CO., INC.	2603018	3	405210	740309	F	3.8	03	59	400	GTRB		50
2057P	SPINNERIN YARN CO., INC.	4600083	2	405210	740305	F	3.8	03	59	435	GTRB		0
2057P	SPINNERIN YARN CO., INC.	4600176	4	405208	740305	F	3.8	03	59	400	GTRB		140
2057P	SPINNERIN YARN CO., INC.	2611599	5 PROPOSED	405210	740305	F	3.8	03	59		GTRB		
5086	HACKENSACK WATER COMPANY	4600065	2	405221	740157		4.8	03	04	550	GTRB		180

Number of Observations: 99

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	NUM	DEPTH	SECT	USE	DATE/CITY
2267P	GLLEN RIDGE COUNTRY CLUB	2604134	2	404925	741145	S	4.6	13	02	300	GTRB	240	
2267P	GLLEN RIDGE COUNTRY CLUB	4600168	3	404928	741141	F	4.5	13	08	400	GTRB	10	
2267P	GLLEN RIDGE COUNTRY CLUB	2601852	1	404922	741132	S	4.4	13	02	353	GTRB	400	
5179	BLOOMFIELD TOWN	2604763	1	404800	741130	T	5.0	13	02	380	GTRB	330	
2048P	NATIONAL STARCH & CHEMICAL	2604314	1	404758	741122	T	4.9	13	02	410	GTRB	300	
2268P	FOREST HILL FIELD CLUB	POND		404808	741051	F	4.4	13	02	14	SP	1200	
2268P	FOREST HILL FIELD CLUB	2604258	1	404749	741041	S	4.5	13	02	238	GTRB	60	
2262P	UPPER MONTCLAIR COUNTRY CLUB	POND	SW	405050	741040	T	3.6	13	02	12	GOOD	1100	
2262P	UPPER MONTCLAIR COUNTRY CLUB	2604390	2	405059	741035		3.6	13	02	335	GTRB	132	
2262P	UPPER MONTCLAIR COUNTRY CLUB	2601199	1	405052	741025		3.4	31	02	490	GTRB	90	
2262P	UPPER MONTCLAIR COUNTRY CLUB	2604825	3	405030	741020	T	3.3	31	02	300	GTRB	60	
2233P	HOFFMANN-LAROCHE INC.	4600156	32	405015	740927	F	2.5	31	02	650	GTRB	260	
2233P	HOFFMANN-LAROCHE INC.	4600155	20	405000	740919	F	2.4	13	16	402	GTRB	100	
2233P	HOFFMANN-LAROCHE INC.	4600157	33	405003	740915	F	2.3	31	02		GTRB	165	
2233P	HOFFMANN-LAROCHE INC.	4600158	37	404958	740907	F	2.2	31	02	720	GTRB	300	
2073P	INTERNATIONAL MINERALS & CHEM.	4600092	1	404700	740900	T	4.2	13	01	352	GTRB	100	
2073P	INTERNATIONAL MINERALS & CHEM.	4600093	2	404700	740900	T	4.2	13	01	400	GTRB	150	
2073P	INTERNATIONAL MINERALS & CHEM.	2605113	3	404700	740900	T	4.2	13	01	400	GTRB	150	
2261P	FRITZCHE DODGE & OLCOTT	2602812	2	405212	740845	U	3.0	31	02	600	GTRB	218	
2066P	MILES LABORATORIES	2603833	2	405248	740824	M	3.4	31	02	300	GTRB	200	
2066P	MILES LABORATORIES	2604613	3	405247	740821	M	3.3	31	02	408	GTRB	200	
2016P	ITT AVIONICS DIVISION	2601834	1	404930	740820	T	1.7	13	16	500	GTRB	150	
2016P	ITT AVIONICS DIVISION	2601835	2	404930	740820		1.7	13	16	450	GTRB	150	
2016P	ITT AVIONICS DIVISION	2601905	3	404930	740820		1.7	13	16	500	GTRB	150	
2016P	ITT AVIONICS DIVISION	2604692	4/SEALED	404912	740812		1.8	13	16	500	GTRB	200	
10512W	V.H. SWANSON CO., INC.	2602717	1	404608	740809	F	4.9	17	07	400	GTRB	150	
2141P	FFAFF TOOL & MANUFACTURING CO.	2604269	3	404604	740806	F	4.9	17	07	550	GTRB	155	
2141P	FFAFF TOOL & MANUFACTURING CO.	2604711	4	404604	740806	F	4.9	17	07	333	GTRB		
2141P	FFAFF TOOL & MANUFACTURING CO.	2602735	2	404604	740805	F	4.9	17	07	740	GTRB	140	
2141P	FFAFF TOOL & MANUFACTURING CO.	2602162	1	404604	740804	F	4.9	17	07	590	GTRB	175	
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE LK.	MARCAL CO.	405405	740754	T	4.6	03	11		SFPAS		
2100P	MARCAL PAPER MILLS, INC.	4600008	1	405412	740752	F	4.7	03	11	308	GTRB	150	
2100P	MARCAL PAPER MILLS, INC.	4600009	2	405412	740752	F	4.7	03	11	330	GTRB	280	
2100P	MARCAL PAPER MILLS, INC.	4600010	3	405412	740752	F	4.7	03	11	325	GTRB	250	
2100P	MARCAL PAPER MILLS, INC.	4600011	4	405412	740752	F	4.7	03	11	282	GTRB	80	
2100P	MARCAL PAPER MILLS, INC.	4600012	5	405412	740752	F	4.7	03	11		GTRB	125	
2100P	MARCAL PAPER MILLS, INC.	4600013	6	405412	740752	F	4.7	03	11		GTRB	300	
5198	WALLINGTON BOROUGH	4600075	8	405125	740750		1.8	03	65	503	GTRB	80	
5198	WALLINGTON BOROUGH	4600074	5	405125	740750		1.8	03	65	506	GTRB	150	
2092P	GIVALDIAN CORPORATION	4600006	6	404936	740745	F	1.2	31	02	297	GTRB	235	
2092P	GIVALDIAN CORPORATION	4600007	7	404940	740745	F	1.2	31	02	250	GTRB	110	
4025PS	KALAPA CHEMICAL, INC.	PASSAIC RIVER		405206	740745	T	2.4	03	21		SFPAS		
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE LAKE	G.S. PAPER	405308	740742	T	3.5	03	21		SFPAS		
5282	GARFIELD WATER DEPARTMENT	2604064	8C	405250	740742		3.2	03	21	405	GTRB	400	
2044P	GRAND UNION CO.	4600002		404752	740738	S	2.8	03	39	300	GTRB	80	
2246P	FARMLAND DAIRIES INC.	2604169	1	405115	740727	U	1.4	03	65	300	GTRB	200	
2246P	FARMLAND DAIRIES INC.	2304250	2	405115	740727	U	1.4	03	65	300	GTRB	185	
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	WHIPPANY	405208	740727	T	2.3	31	02		SP		
2313P	PENCO OF LYNCHBURST INC.	4600173	2	404845	740715		1.8	03	32	313	GTRB	185	
2313P	PENCO OF LYNCHBURST INC.	2601699	3	404845	740715	F	1.8	03	32	410	GTRB	150	
2313P	PENCO OF LYNCHBURST INC.	4600172	1	404845	740714		1.8	03	32	267	GTRB	110	
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	ORONITE CO	405143	740712	T	1.8	31	07		SP		
5198	WALLINGTON BOROUGH	2603027	LESTER ST	405125	740710		1.5	03	65	400	GTRB	130	
2313P	PENCO OF LYNCHBURST INC.	2603804	4	404840	740705			03	32	352	GTRB	185	

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEO1	GEO2	CAPACITY
	UPPER MONTCLAIR COUNTRY CLUB	2604390	2	405059	741035		3.6	13	02	335	GTRB		132
	UPPER MONTCLAIR COUNTRY CLUB	2604825	3	405030	741020	T	3.3	31	02	300	GTRB		60
	UPPER MONTCLAIR COUNTRY CLUB	FOND	5W	405050	741040	T	3.6	13	02	12	GCSD		1100
2267P	GLEN RIDGE COUNTRY CLUB	2601852	1	404922	741132	S	4.4	13	02	353	GTRB		400
	GLEN RIDGE COUNTRY CLUB	2604134	2	404925	741145	S	4.6	13	02	300	GTRB		200
	GLEN RIDGE COUNTRY CLUB	4600168	3	404928	741141	F	4.5	13	08	400	GTRB		10
2268P	FOREST HILL FIELD CLUB	2604258	1	404749	741041	S	4.5	13	02	238	GTRB		60
	FOREST HILL FIELD CLUB	FOND		404808	741051	F	4.4	13	02	14	SP		1200
2313P	FENDO OF LYNCHURST INC.	4600172	1	404845	740714		1.8	03	32	267	GTRB		110
	FENDO OF LYNCHURST INC.	4600173	2	404845	740715		1.8	03	32	313	GTRB		195
	FENDO OF LYNCHURST INC.	2601699	3	404845	740715	F	1.8	03	32	410	GTRB		150
	FENDO OF LYNCHURST INC.	2603804	4	404840	740705	F	1.8	03	32	352	GTRB		185
2372P	YOO-HOO CHOCOLATE BEV. CORP.	2602067	1	404946	740350		2.5	03	05	303	GTRB		90
	YOO-HOO CHOCOLATE BEV. CORP.	2602933	2	404946	740350		2.5	03	05	393	GTRB		50
	YOO-HOO CHOCOLATE BEV. CORP.	2603053	3	404946	740350		2.5	03	05	378	GTRB		55
4006PS	DUNDEE WATER POWER & LAND CO.	DUNDEE LAKE	G.S. PAPER	405308	740742	T	3.5	03	21		SPPAS		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	WHIPPANY	405208	740727	T	2.3	31	02		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	CHELTON CO	405208	740702	T	2.3	31	02		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	OKONITE CO	405143	740712	T	1.8	31	07		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE LK.	MARGAL CO.	405405	740754	T	4.6	03	11		SPPAS		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	PASSAIC IN	405218	740702	T	2.4	31	02		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	TUCK IND.	405136	740704	T	1.7	31	07		SP		
	DUNDEE WATER POWER & LAND CO.	DUNDEE CAN	PANTASOTE	405204	740704	T	2.2	31	02		SP		
4029PS	KALAWA CHEMICAL, INC.	PASSAIC RIVER		405206	740745	T	2.4	03	21		SPPAS		
4041PS	STEPAN CHEMICAL COMPANY	SADDLE RIVER		405335	740447		4.6	03	54		SPPAS		2000
5086	HACKENSACK WATER COMPANY	4600065	2	405221	740157		4.9	03	04	550	GTRB		180
5127	LODI BOROUGH	4600068	ARNOT ST.	405240	740518		3.1	03	31	300	GTRB		160
	LODI BOROUGH	4600069	4	405249	740502		3.3	03	31	307	GTRB		295
	LODI BOROUGH	4600070	5	405249	740502		3.3	03	31	300	GTRB		355
	LODI BOROUGH	4600071	7	405249	740502		3.3	03	31	333	GTRB		355
	LODI BOROUGH	4600072	LAWRENCE	405217	740420	U	3.1	03	31	373	GTRB		500
	LODI BOROUGH	4600073	COLUMBIA	405240	740410	U	3.5	03	31	409	GTRB		375
	LODI BOROUGH	2601037	TERRACE	405157	740558		2.1	03	31	607	GTRB		190
	LODI BOROUGH	2601010	GARFIELD	405218	740538		2.6	03	31	459	GTRB		150
	LODI BOROUGH	2603183	CORABELLE	405231	740435		3.2	03	31	470	GTRB		200
5179	BLOOMFIELD TOWN	2604763	1	404800	741130	T	5.0	13	02	380	GTRB		330
5198	WALLINGTON BOROUGH	2603933	DUL	405131	740619		1.5	03	65	400	GTRB		140
	WALLINGTON BOROUGH	2603027	LESTER ST	405125	740710		1.5	03	65	400	GTRB		130
	WALLINGTON BOROUGH	4600075	8	405125	740750		1.8	03	65	503	GTRB		80
	WALLINGTON BOROUGH	4600074	5	405125	740750		1.8	03	65	506	GTRB		150
5282	GARFIELD WATER DEPARTMENT	2604016	1A	405256	740651		3.1	03	21	400	GTRB		300
	GARFIELD WATER DEPARTMENT	2604063	2	405312	740648	U	3.4	03	21	475	GTRB		150
	GARFIELD WATER DEPARTMENT	2604010	5	405209	740638		2.2	03	21	576	GTRB		150
	GARFIELD WATER DEPARTMENT	2604064	6C	405250	740742		3.2	03	21	405	GTRB		400

Number of Observations: 99

NUMBER	NAME	SOURCE ID	LOC ID	LAT	LONG	BLACC	DISTANCE	COUNTY	MUN	DEPTH	GEOT	GEOD	LAKE/ITY
10060W	CHRISTIANI-E. RUTHERFORD B.O.	2603920	1	404931	740552	F	1.0	03	12	225	GTRB		125
10512W	V.H. RUSKIN CO., INC.	2602717	1	404608	740809	F	4.9	17	07	400	GTRB		150
2016P	ITT AVIONICS DIVISION	2601834	1	404930	740820	T	1.7	13	16	500	GTRB		150
	ITT AVIONICS DIVISION	2601835	2	404930	740820		1.7	13	16	450	GTRB		150
	ITT AVIONICS DIVISION	2601905	3	404930	740820		1.7	13	16	500	GTRB		150
	ITT AVIONICS DIVISION	2604692	4/SEALED	404912	740812		1.8	13	16	500	GTRB		200
2044P	GRAND UNION CO.	4600002		404752	740732	S	2.8	03	39	300	GTRB		80
2048P	NATIONAL STARCH & CHEMICAL	2604314	1	404758	741122	T	4.9	13	02	410	GTRB		200
2049P	SIKA CORPORATION	2604036	1	404825	740638		2.0	03	32	302	GTRB		220
2058P	GANES CHEMICAL, INC.	4600080	2	405026	740557	F	0.6	03	05	490	GTRB		200
	GANES CHEMICAL, INC.	2600005	4	405024	740607	F	0.5	03	05	526	GTRB		80
	GANES CHEMICAL, INC.	2604277	5	405025	740557	F	0.6	03	05	430	GTRB		30
2057P	SPINNERIN YARN CO., INC.	4600177	0	405208	740309	F	3.7	03	59	404	GTRB		65
	SPINNERIN YARN CO., INC.	4600083	2	405210	740305	F	3.8	03	59	435	GTRB		0
	SPINNERIN YARN CO., INC.	2603018	3	405210	740309	F	3.8	03	59	400	GTRB		50
	SPINNERIN YARN CO., INC.	4600176	4	405208	740305	F	3.8	03	59	400	GTRB		140
	SPINNERIN YARN CO., INC.	2611599	5 PROPOSED	405210	740305	F	3.8	03	59		GTRB		
2064P	MILES LABORATORIES	2603533	2	405248	740824	M	3.4	31	02	300	GTRB		200
	MILES LABORATORIES	2614613	3	405247	740821	M	3.3	31	02	408	GTRB		200
2073P	INTERNATIONAL MINERALS & CHEM.	4600092	1	404700	740900	T	4.2	13	01	352	GTRB		100
	INTERNATIONAL MINERALS & CHEM.	4600093	2	404700	740900	T	4.2	13	01	400	GTRB		150
	INTERNATIONAL MINERALS & CHEM.	2605113	3	404700	740900	T	4.2	13	01	400	GTRB		150
2092P	STIVALDAN CORPORATION	4600006	6	404926	740745	F	1.2	31	02	297	GTRB		235
	STIVALDAN CORPORATION	4600007	7	404940	740745	F	1.2	31	02	250	GTRB		110
2093P	ORVAL KENT FOOD COMPANY, INC.	2604317	1	405045	740704	F	0.8	03	12	580	GTRB		150
	ORVAL KENT FOOD COMPANY, INC.	2604341	2	405045	740654	S	0.7	03	12	300	GTRB		150
	ORVAL KENT FOOD COMPANY, INC.	2604382	3	405035	740655	T	0.5	03	12	470	GTRB		430
2094P	D.A.K. MANUFACTURING CORP.	2600466	1	405404	740655	F	4.4	03	11		GTRB		
	D.A.K. MANUFACTURING CORP.	4600210	2	405404	740655	U	4.4	03	11		GTRB		
	D.A.K. MANUFACTURING CORP.	4600211	3	405404	740655	U	4.4	03	11		GTRB		
	D.A.K. MANUFACTURING CORP.	2605037	4	405353	740657	F	4.2	03	11	250	GTRB		60
2100P	MARCAL PAPER MILLS, INC.	4600008	1	405412	740752	F	4.7	03	11	308	GTRB		150
	MARCAL PAPER MILLS, INC.	4600009	2	405412	740752	F	4.7	03	11	330	GTRB		280
	MARCAL PAPER MILLS, INC.	4600010	3	405412	740752	F	4.7	03	11	325	GTRB		250
	MARCAL PAPER MILLS, INC.	4600011	4	405412	740752	F	4.7	03	11	282	GTRB		80
	MARCAL PAPER MILLS, INC.	4600012	5	405412	740752	F	4.7	03	11		GTRB		125
	MARCAL PAPER MILLS, INC.	4600013	6	405412	740752	F	4.7	03	11		GTRB		300
2141P	PEAFF TOOL & MANUFACTURING CO.	2602162	1	404604	740804	F	4.9	17	07	590	GTRB		175
	PEAFF TOOL & MANUFACTURING CO.	2602735	2	404604	740805	F	4.9	17	07	740	GTRB		140
	PEAFF TOOL & MANUFACTURING CO.	2604269	3	404604	740806	F	4.9	17	07	550	GTRB		155
	PEAFF TOOL & MANUFACTURING CO.	2604711	4	404604	740806	F	4.9	17	07	333	GTRB		
2172P	PARK SO-KIDDIE ASSOCIATES	2604234	1	405408	740630	S	4.5	03	57	400	GTRB		300
	PARK SO-KIDDIE ASSOCIATES	2604235	2	405410	740629	S	4.6	03	57	400	GTRB		300
	PARK SO-KIDDIE ASSOCIATES	2605301	3	405410	740629	S	4.6	03	57	300	GTRB		0
	PARK SO-KIDDIE ASSOCIATES	2604104	4	405412	740600	S	4.6	03	57	300	GTRB		
2211P	HEBUEL PROCESS CHEMICALS, INC.	4600125	1	405000	740500		1.4	03	05	170	GEOD		600
2230P	HOFFMANN-LAROCHE INC.	2406268	1	405047	740345	T	2.6	41	03	140	GO		700
2233P	HOFFMANN-LAROCHE INC.	4600155	20	405000	740919	F	2.4	13	16	402	GTRB		100
	HOFFMANN-LAROCHE INC.	4600156	33	405015	740927	F	2.5	31	02	650	GTRB		220
	HOFFMANN-LAROCHE INC.	4600157	33	405003	740915	F	2.3	31	02		GTRB		165
	HOFFMANN-LAROCHE INC.	4600158	37	404958	740907	F	2.2	31	02	720	GTRB		300
2246P	FARMLAND ENTERIES INC.	2604169	1	405115	740727	U		03	65	300	GTRB		200

Central

Let's protect our earth



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
METRO BUREAU OF REGIONAL ENFORCEMENT
2 BABCOCK PLACE
WEST ORANGE, NEW JERSEY 07052

GEORGE G. McCANN, P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

November 18, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Dennis Space
Senior Vice President and General Manager
P.O. Box 8
Foot of 13th Street
Carlstadt, NJ 07072

Re: Compliance Evaluation Inspection
Arsnyco, Incorporated.
NJPDES No. NJ 0030970
Carlstadt/Bergen County

Dear Mr. Space:

A Compliance Evaluation Inspection of your facility was conducted by a representative of this Division on October 13, 1988. A copy of the completed inspection report form is enclosed for your information.

Your facility received a rating of "UNACCEPTABLE" due to the following deficiencies:

1. A review of the Discharge Monitoring Reports (DMR's) for the period March 1, 1988 to May 31, 1988 has revealed that the results for petroleum hydrocarbon concentration exceeded the effluent limitations set forth in Part III-L of NJPDES Permit No. NJ 0030970.
2. The facility is supplied with water by both a public water supply and an on-site well and as such may be required to obtain a Physical Connection Permit in accordance with the New Jersey Safe Drinking Water Act, N.J.A.C. 7:10-10.1 et seq. The requirements of

ATTACHMENT A

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the application can be explained by Mr. James Montgomery of the Bureau of Safe Drinking Water (BSDW) who may be reached at (609) 292-5550.

3. The on-site well is not metered and may divert greater than 100,000 gpd. Facilities are required to obtain a Water Allocation Permit in accordance with N.J.A.C. 7:19-1 et seq. when the monthly average diversion of well water is greater than 100,000 gallons per day. Information regarding Water Allocation Permits may be obtained from Mr. Andrew Hildick-Smith of the Bureau of Water Allocation (BWA) who can be reached at (609) 292-2957.
4. The requirements of Sludge Quality Assurance Reporting must be complied with as specified by Part II-L1.C of the permit. An explanation of program requirements may be obtained from Mr. Tim Doult of the Bureau of Pretreatment and Residuals (BPR) who can be reached at (609) 633-3823.

A Notice of Violation (NOV) was issued to Arsynco during this inspection which addressed the poor housekeeping in the areas of the compacter and brine cooling system. An acceptable response to the NOV was received by this office within the required time.

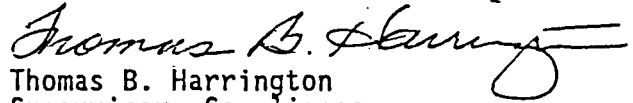
On October 21, 1988, Arsynco was issued an Administrative Order from NJDEP which addressed several violations including deficiency 1. above. A written report concerning specific details of remedial measures to be instituted, as well as an implementation timetable, for deficiencies 2., 3., and 4. must be submitted to this Department and USEPA, Permits Administration Branch within thirty (30) calendar days of the date of this correspondence.

You are advised that the New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) provides for substantial monetary and criminal penalties in cases of permit violations.

Please direct all correspondence and inquiries to Kathleen Beyer, the Environmental Specialist responsible for this case, who can be reached at (201) 669-3900, or by letter through this Division.

Failure to fully comply with the above will result in the initiation of enforcement action by this Department. This shall in no way be construed, however, to indicate any exemption on your part from possible penalties for violations indicated by the Compliance Evaluation Inspection, as stated above.

Very truly yours,



Thomas B. Harrington
Supervisor, Compliance
Monitoring Unit
Metro Bureau of
Regional Enforcement

E17:G25

c: Dr. Richard A. Baker, USEPA
Mr. Paul Molinari, USEPA
Mr. James Montgomery, BSDW
Mr. Andrew Hildick-Smith, BWA
Mr. Tim Douth, BPR

Enclosure

bc: Zaheer Hussain, Enforcement
Robert Candido, Criminal Justice
Central File



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
 CN 029
 TRENTON, NEW JERSEY 08625

GEORGE G. McCANN, P.E.
 DIRECTOR

DIRK C. HOFMAN, P.E.
 DEPUTY DIRECTOR

IN THE MATTER OF : ADMINISTRATIVE ORDER AND
 ARSYNCO INCORPORATED : NOTICE OF CIVIL ADMINISTRATIVE
 CARLSTADT/BERGEN COUNTY : PENALTY ASSESSMENT

This Administrative Order and Notice of Civil Administrative Penalty Assessment is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter "NJDEP" or "the Department") by N.J.S.A. 13:1D-1 et seq. and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and duly delegated to the Assistant Director or Bureau Chief of the Enforcement Element, Division of Water Resources, pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. Arsynco, Inc. (hereinafter "Arsynco"), owns and operates a facility for the manufacture of organic chemical intermediates at the Foot of 13th Street in Carlstadt, Bergen County; block 91, lot 1 on the tax map of Carlstadt (hereinafter "the facility").
2. It is unlawful for any person to discharge any pollutant except in conformity with a valid New Jersey Pollutant Discharge Elimination System (NJPDES) permit as required by the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-6.a.
3. On or about April 15, 1985, the Department issued to Arsynco a New Jersey Pollutant Discharge Elimination System Significant Indirect User permit (NJPDES-SIU) NJ0030970 (hereinafter "the permit") for the discharge of industrial process wastewater after pretreatment to the Rutherford, East Rutherford, Carlstadt Joint Meeting (RERCJM) Sewage Treatment Plant.

ATTACHMENT B

4. The discharge of pollutants in excess of permit effluent limitations and/or the failure to comply with permit conditions is a violation of NJPDES-SIU permit No. NJ0030970 and N.J.A.C. 7:14-1 et seq.

5. Arsynco's Discharge Monitoring Report for the reporting period December 1, 1987 to February 29, 1988 revealed that the permit limitations for Total Volatile Organics (TVO's) had been exceeded. The average TVO's reported value of 24.3 lbs/day for discharge 002 exceeded the 7.26 lbs/day permit limitation. The maximum TVO's reported value for the same discharge was 37.3 lbs/day, which exceeded the permit limitation of 33.7 lbs/day.

6. On or about January 18, 1988, the influent flow of the Rutherford, East Rutherford, Carlstadt Joint Meeting (RERCJM) system was redirected for treatment to the Bergen County Utilities Authority (BCUA) in Little Ferry.

7. The discharge of any pollutants which create a fire or explosion hazard in the Domestic Treatment Works is prohibited by NJPDES-SIU permit No. NJ0030970 as specified in Part II-L 2. C.(1) and N.J.A.C 7:14-13.3(a)1. Treatment Works includes intercepting sewers and sewage collection systems as defined by N.J.A.C. 7:14A-1.9.

8. On February 24, 1988, representatives of the Department inspected the Arsynco facility in response to a report to the NJDEP Environmental Hotline, of foul odors emanating from the sewer system. Mr. Dennis Space, Vice President and General Manager of Arsynco informed the Department that a problem with a volatile organic skimmer/scrubber pretreatment system had resulted in Arsynco discharging xylene and toluene, toxic pollutants as defined by N.J.A.C. 7:14A-1.9, into the sanitary sewer system.

9. On February 24, 1988, BCUA obtained samples of the wastewater discharge from Arsynco to the sanitary sewer. Analyses performed by a NJ State certified laboratory revealed that the concentrations of TVO's in the effluent were 334.19 mg/l at the discharge of the pretreatment basin and 218.58 mg/l at a manhole at the foot of 13th Street. The excessive concentrations of TVO's caused a Lower Explosion Limit (L.E.L.) of 51% from the manhole at the foot of 13th Street at the time of sample collection. The sewer line accessed by the manhole at the foot of 13th Street exclusively contains the process wastewater and the sanitary discharge from the Arsynco facility.

10. The discharge of a slug loading is prohibited by NJPDES-SIU permit No. NJ0030970 as specified in Part II-L 2. C.(4) and N.J.A.C 7:14-13.3(a)1. A slug loading is "any pollutant ... released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the Domestic Treatment Works", as defined by NJPDES-SIU permit NJ0030970 Part II-L 1.B. A L.E.L. of 51% and TVO's concentration of 334.19 mg/l indicates a slug loading and an explosion hazard.

11. On April 13, 1988, a Compliance Evaluation Inspection at Arsynco revealed that:

- a.) The skimmer/scrubber pretreatment system had not been maintained properly during the months of November through February resulting in the fouling of the packing and demistor pad of the air stripping

column.

- b.) Arsynco had submitted inaccurate values for TVO's because of the inaccurate monitoring method for instantaneous maximum flow in violation of Part III-L, Page 1 of 1 of the facility's permit.

12. On May 17, 1988 Arsynco reported a permit limit violation for petroleum hydrocarbons for the month of March 1988. The maximum Petroleum Hydrocarbons reported value of 415 mg/l for discharge 002 exceeded the 150 mg/l permit limitation.

13. Based on the facts set forth in these FINDINGS, the Department has determined that Arsynco has violated the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., specifically N.J.S.A. 58:10A-6, and the regulations promulgated pursuant thereto, N.J.A.C. 7:14A-1 et seq., specifically N.J.A.C. 7:14A-1.2.

ORDER

NOW, THEREFORE, IT IS ORDERED THAT:

14. Arsynco shall immediately take all necessary measures to comply with all conditions and effluent limitations of the permit. These measures shall include:

- a.) Halt or reduce manufacturing activity in order to maintain compliance with the conditions of the permit.
- b.) Take all necessary steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit, including but not limited to, additional types of monitoring, temporary repairs or other mitigating measures.
- c.) Install a monitoring device to measure the degree of fire and explosion hazard at the last available point of the permittee's sewer line prior to connection to the publicly owned sewer system. This device must be capable of sounding an alarm at a level lower than that which would be a violation of BCUA's Rules and Regulations for a fire and explosion hazard. A permanent record of violations must be maintained in a log book at the facility and violations must be reported to appropriate personnel at BCUA.
- d.) At all times, the treatment system must be maintained in good working order and operated as efficiently as possible. The maintenance program of all treatment and collection equipment must be performed at the frequency required to achieve compliance with the terms and conditions of the permit in accordance with N.J.A.C. 7:14A-2.5(a)5.
- e.) The treatment system must be inspected on a daily basis to ensure that proper treatment efficiency is being maintained and to identify any system malfunctions. Arsynco shall maintain at the facility complete inspection records indicating dates of inspection, the inspector's name, conditions observed, and

maintenance/repair performed. A monthly report of the findings of the inspections and repairs performed must be submitted to NJDEP by the 10th day of the succeeding month until the facility is in compliance with the permit.

15. Arsynco shall, within 45 days of receipt to this order, prepare an engineer's report on the existing treatment system which at a minimum shall contain the following information:

- a.) The effectiveness and capabilities of the treatment system to meet effluent quality and,
- b.) necessary modifications to the treatment system and/or the process if required to meet compliance with the permit's limitations and conditions.

The report must be prepared by a qualified Licensed Professional Engineer and must be submitted to the address in paragraph 21.

16. Within 90 days of receipt of Division of Water Resources' approval of the recommendations of the Engineers Report, Arsynco shall implement the modifications in the manner and time period established by the Department.

17. Arsynco shall accurately monitor the instantaneous maximum flow within fifteen minutes of the collection of the grab samples for the analyses of Total Volatile Organics to properly calculate and report the Total Volatile Organics loading as required by Part III-L, Page 1 of 1 of the permit.

18. Arsynco shall locate the sample/measurement point for all permitted parameters, including flow, to the manhole at the foot of 13th Street (near the entrance gate of the facility.)

19. This Order is effective upon receipt.

NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

20. Pursuant to N.J.S.A. 58:10A-10d and N.J.A.C. 7:14-8.1 et seq., and based upon the above FINDINGS, NJDEP has determined that a civil administrative penalty should be assessed against Arsynco in the amount of \$79,000.00. NJDEP's rationale for this Civil Administrative Penalty is set forth in Appendix A which is attached hereto and incorporated herein.

21. Payment of the penalty is due when a final order is issued by the Commissioner subsequent to a hearing if any, or when this Notice of Civil Administrative Penalty Assessment becomes a final order (see following paragraph). Payment shall be made by certified or cashier's check payable to "Treasurer, State of New Jersey" and shall be submitted to:

Peter T. Lynch, Chief
Metro Bureau of Regional Enforcement
Division of Water Resources
2 Babcock Place
West Orange, New Jersey 07052

22. If no request for a hearing is received within twenty (20) calendar days from receipt of this Notice of Civil Administrative Penalty Assessment, it shall become a final order upon the twenty-first calendar day following its receipt by Arsynco, and the penalty shall be due and payable.

NOTICE OF RIGHT TO A HEARING

23. Arsynco is entitled to an administrative hearing. Any hearing request shall be delivered to the address referenced in paragraph 21 above within twenty (20) calendar days after receipt by Arsynco of this Administrative Order and Notice of Civil Administrative Penalty Assessment.

24. Arsynco shall, pursuant to N.J.A.C. 7:14-8.4(a) in its request for a hearing furnish NJDEP with the following:

- a. The name, address and telephone number of Arsynco and its authorized representative;
- b. Arsynco defenses to each of the findings of fact stated in short and plain terms;
- c. an admission or denial of each of the findings of fact. If Arsynco is without knowledge or information sufficient to form a belief as to the truth of a finding, Arsynco shall so state and this shall have the effect of a denial. A denial shall fairly meet the substance of the findings denied. When Arsynco intends in good faith to deny only a part or a qualification of a finding, Arsynco shall specify so much of it as is true and material and deny only the remainder. Arsynco may not generally deny all of the findings but shall make all denials as specific denials of designated findings. For each finding Arsynco denies, Arsynco shall allege the fact or facts as Arsynco believes it or them to be;
- d. information supporting the request and specific reference to/or copies of other written documents relied upon to support the request;
- e. an estimate of the time required for the hearing (in days and/or hours); and,
- f. a request, if necessary, for a barrier-free hearing location for physically disabled persons;

GENERAL PROVISIONS

25. This Administrative Order and Notice of Civil Administrative Penalty Assessment is binding on Arsynco, its principals, directors, officers, agents, successors, assigns, any trustee in bankruptcy or other trustee, and any receiver appointed pursuant to a proceeding in law or equity.

26. Arsynco shall submit all documents required by this Administrative Order and Notice of Civil Administrative Penalty Assessment by certified mail, return receipt requested or by hand delivery to the address in paragraph 21 above.

27. Notice is given that pursuant to N.J.S.A. 58:10A-10d, NJDEP is authorized to assess a civil administrative penalty of not more than \$50,000 for each violation, and each day during which the violation continues shall constitute an additional, separate and distinct offense.

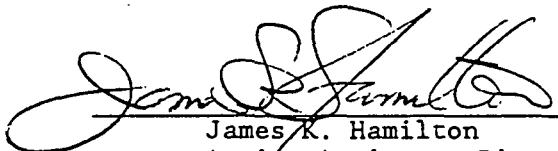
28. Notice is given that this Administrative Order and Notice of Civil Administrative Penalty Assessment is issued only for the violations identified in the Findings hereinabove and that violations of any statutes, rules or permits other than those herein cited may be cause for additional enforcement actions, either administrative or judicial, being instituted without further notice. By issuing this Administrative Order and Notice of Civil Administrative Penalty Assessment the Department does not waive its rights to initiate additional enforcement actions.

29. Notice is further given that pursuant to N.J.S.A. 58:10A-10e, any person who violates N.J.S.A. 58:10A-1 et seq., or an administrative order issued pursuant to N.J.S.A. 58:10A-10b, or who fails to pay the civil administrative penalty in full after it is due shall be subject to a civil penalty not to exceed \$50,000 per day of such violation, and each day's continuance of the violation shall constitute an additional, separate and distinct violation.

30. Notice is further given that pursuant to N.J.S.A. 58:10A-10f, any person who willfully or negligently violates this act shall, upon conviction, be guilty of a crime of the fourth degree and shall be punished by fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than one year or by both. Punishment for a second offense under this subsection shall be a fine of not less than \$10,000 nor more than \$100,000 per day of violation, or by imprisonment for not more than two years, or both. Any person who knowingly makes a false statement, representation, or certification in any application, record, or other document filed or required to be maintained under this act or who falsifies, tampers with or knowingly renders inaccurate, any monitoring device or method required to be maintained pursuant to this action shall, upon conviction, be subject to a fine of not more than \$20,000.00 or by imprisonment for not more than six months, or by both.

BY THE AUTHORITY OF
GEORGE G. McCANN, P.E.
DIRECTOR
DIVISION OF WATER RESOURCES
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DATE: October 18, 1988


James K. Hamilton
Acting Assistant Director
Enforcement Element

Appendix A

CIVIL ADMINISTRATIVE PENALTY RATIONALE

Arsynco Incorporated
P.O. Box 8
Foot of 13th Street
Carlstadt, N.J. 07072

Re: Violations of NJPDES Permit No. NJ0030970

N.J.A.C. 7:14-8.5 Civil Administrative Penalty Determination

Except for those violations set forth in N.J.A.C. 7:14-8.6 through 8.11, the Department shall assess a civil administrative penalty for violations described in this section on the basis of the seriousness of the violation and the conduct of the violator at the mid-point of the ranges pursuant to 7:14-8.5(c) unless adjusted to 7:14-8.5(f) below.

1. April 13, 1988 - Failure to maintain and operate the treatment system in good working condition.

Seriousness factor: Pursuant to N.J.A.C. 7:14-8.5(d)3.i.

Minor: Any violation not included in (d)1 or (d)2 above, (Major or Moderate Seriousness), or (d)3ii below.

Conduct factor: Pursuant to N.J.A.C. 7:14-8.5(e)2.

Moderate shall include any unintentional but foreseeable act or omission by the violator.

Range for Minor Seriousness and Moderate Conduct: \$3,000-\$6,000
Penalty Assessed - \$4,500.00

2. December 1, 1987 to February 29, 1988 DMR - Average TVO violation. The permit limit is 7.26 lbs/day and the violation is 24.3 lbs/day.

Seriousness Factor: Pursuant to N.J.A.C. 7:14-8.5(d)1.ii.(1)

Major: Any violation exceeding the effluent which is measured by concentration or mass for any discharge exceeding the effluent limitation set in a permit or administrative order by more than 50 percent for a hazardous pollutant.

Conduct Factor: Pursuant to N.J.A.C. 7:14-8.5(e)2.

Moderate shall include any unintentional but foreseeable act or omission by the violator.

Range for Major Seriousness and Moderate Conduct: \$30,000-\$40,000.
Penalty assessed - \$35,000.00

3. December 1, 1987 to February 29, 1988 DMR - Maximum TVO violation. The permit limit is 33.7 lbs/day and the violation is 37.3 lbs/day.

Seriousness Factor: Pursuant to N.J.A.C. 7:14-8.5(d)3.ii.(1)

Minor: Any violation exceeding the effluent limitation which is measured by concentration or mass for any discharge exceeding the effluent limitation set forth in a permit or administrative order by up to 25 percent for a hazardous pollutant.

Conduct Factor: Pursuant to N.J.A.C. 7:14-8.5(e)2.

Moderate conduct shall include any unintentional but foreseeable act or omission by the violator.

Range for Minor Seriousness and Moderate Conduct: \$3,000-\$6,000

Penalty assessed - \$4,500.00

4. February 24, 1988 - Discharge in violation of the additional conditions of their NJPDES permit Part II - L 2. C. (1) and (4) - Discharge of pollutants which create a fire or explosion hazard in the Domestic Treatment Works(DTW) and Discharge of any pollutants released at a flow rate and/or pollutant concentration which will cause interference with the DTW.

Seriousness Factor: Pursuant to N.J.A.C. 7:14-8.5(d)2.i.

Moderate: Any violation which has caused substantial harm to human health or the environment.

Conduct Factor: Pursuant to N.J.A.C. 7:14-8.5(e)2.

Moderate shall include any unintentional but foreseeable act or omission by the violator.

Range for Moderate Seriousness and Moderate Conduct: \$10,000-\$20,000

Penalty assessed - \$15,000.00

5. March 1988 Noncompliance Report - Maximum Petroleum Hydrocarbon violation. The permit limit is 150 mg/l and the violation is 418 mg/l.

Seriousness Factor: Pursuant to N.J.A.C. 7:14-8.5(d)1.ii.(2)

Major: Any violation of an effluent limitation which is measured by concentration or mass for any discharge exceeding the effluent limitation set forth in a permit or administrative order by more than 100 percent for a non-hazardous pollutant.

Conduct Factor: Pursuant to N.J.A.C. 7:14-8.5(e)3.

Minor shall include any other conduct not identified in e(1). or (2).

Range for Major Seriousness and Minor Conduct: \$15,000-\$25,000

Penalty assessed - \$20,000.00

1. Discharge Violation - Good working order.....	\$4,500.00
2. Discharge Violation - Exceed average - TVO's.....	\$35,000.00
3. Discharge Violation - Exceed maximum - TVO's.....	\$4,500.00
4. Discharge Violation - Additional conditions	\$15,000.00
5. Discharge Violation - Exceed maximum -Pet. Hydr...	\$20,000.00

Total Penalties Assessed.....\$79,000.00



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

Michele M. Putnam
Deputy Director

Hazardous Waste Operations

John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625
(609)633-1408

Lance R. Miller
Deputy Director

Responsible Party Remedial Action

MEMORANDUM

TO: Jeff Sterling
Metro Bureau of Enforcement

THROUGH: John H. Skoviak *B. Smith* Section Chief
Bureau of Compliance and Technical Services

FROM: Robert P. Posey *RFP*
Quality Assurance/Quality Control Unit

SUBJECT: NET Mid-Atlantic, Inc. Test Report # 88-1002;
Case-Arsynco, Inc.

07 JUL 1988

INTRODUCTION

A quality assurance review was performed by Robert P. Posey on this tier I test report submitted by NET Mid-Atlantic, Inc. to BCTS on May 25, 1988; the report was not received by BCTS until July 5, 1988 due to delivery problems at NJDEP. Three soil samples and a trip blank were collected by Ruark Smith, BCTS and Jeff Sterling, MBE on May 5, 1988 and delivered to the lab that day. The lab considers the sample receipt date to be May 6, 1988 since all of the documentation was not complete until that day.

The soil samples were analyzed for purgeable organics with a mass spectral library search for non-target compounds. The trip blank was not analyzed after discussion between the lab and the QA/QC section.

RESULTS OF REVIEW

I. General Requirements

The test report is assembled in the proper format with all required information provided.

II. Sample Holding Times

The samples were collected on May 5, 1988 and analyzed on May 13, 1988. The 14 day holding time limit was met.

III. Volatile Organics Analysis

A. GC/MS Tune Performance Check

The GC/MS tune performance data is acceptable. The mass calibration and ion abundance criteria were met for both tune checks.

B. GC/MS Initial Calibration

The initial calibration data is acceptable. Performance criteria for the Calibration Check Compounds (CCC) and System Performance Check Compounds (SPCC) were met.

C. GC/MS Continuing Calibration

The continuing calibration data is acceptable. Performance criteria for the CCC'S and SPCC's were met.

D. Surrogate Spikes

The surrogate spike data is acceptable. Surrogate spiking was performed on all required samples, spikes and blanks. The recoveries were within the acceptable limits in all cases.

E. Matrix Spikes

The matrix spike data is acceptable. The recovery and RPD for Toluene were outside the control limits for the matrix spikes. The sample that was spiked contained enough Toluene to interfere with the recovery of the spiked amount. The spiked sample was not from the job number for this case. No action is needed.

F. Blank

The method blank was found to contain 2-Butanone and acetone. 2-Butanone was detected at an estimated concentration of 7,000 ug/kg after the 125 fold scaling used to make a comparison to the samples. Acetone was detected at an estimated concentration of 475 ug/kg.

G. Samples

Some sample results were re-calculated to verify the results reported by the lab. Correct calculations were made by the analyst and confirmed by the QC supervisor.

The samples were extracted with methanol and diluted so the detection limits were raised substantially. This was necessary because of the large amount of contamination present in the samples. The 2-Butanone results for samples STE 018 and STE 019 are rejected due to possible laboratory contamination as suggested by the method blank results. No other problems have been found which would adversely affect data quality.

CONCLUSIONS

I. General Requirements

The test report is assembled in the proper format with all required information provided.

II. Sample Holding Times

Sample holding time criteria have been met.

III. Volatile Organics Analysis

The tune performance check data, the initial and continuing calibration data, the surrogate spike data and matrix spike data are acceptable. The recovery and RPD for the toluene matrix spike were outside the control limits but this is attributable to the large amount of toluene already present in the sample that was spiked. Acetone was detected in the method blank but not in any of the samples. 2-Butanone was detected in samples STE 018 and STE 019 and in the associated method blank. The 2-Butanone results for samples STE 018 and STE 019 are rejected due to possible laboratory contamination. All other results may be used for your intended purpose. A table listing the usable sample results is attached.

IV. Payment Recommendation

I recommend that NET Mid-Atlantic, Inc. be paid the full invoice amount for this analysis in accordance with the terms and conditions of Laboratory Services Contract X-195.

c. Ruark Smith



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Acting Director

2 Babcock Place

West Orange, N.J. 07052

201 - 669 - 3960

M E M O R A N D U M

TO: File 02-05-12
FROM: ^{DAS} Jeffrey A. Sterling, Environmental Engineer
THRU: ^{T.T.} Yacoub E. Yacoub, Section Chief
RE: Analytical Results for Sample STE017, STE018, STE019.
Sample Location - Arsynco, Inc., Carlstadt, NJ
DATE: 7/11/88

On 5/5/88 three (3) soil samples were taken from within the solvent tank farm at the subject facility. The samples were taken from areas within the tank farm which revealed visual evidence of soil contamination from discharges. The retrieval of the samples was necessary to verify that the Spill Act had, indeed, been violated by Arsynco, Inc. On 11/25/88, the subject company was cited for violating NJSA 58:10-23.11(c) and NJSA 58:10-23.11(e).

The analytical report (attached) reveals that the soil samples had significant amounts of toluene and ethylbenzene present. The lab results were reviewed by the NJDEP/BCTS and the results of this internal review by the Department is discussed in the attached memo, dated 7/7/88, from Robert P. Posey.

The results presented in the analytical report confirm that the Spill Act has been violated by Arsynco, Inc. Appropriate action will be taken by this office to address the aforementioned violation of the Spill Act.

cc: Arnold Schiff
Ernest Kuhlwein

ATTACHMENT C



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Mid-Atlantic, Inc.
1501 Grandview Avenue
P.O. Box 248
Thorofare, NJ 08086

Tel: (609) 848-3939
Fax: (609) 848-9195

ANALYTICAL REPORT

ANALYTICAL DATA REPORT PACKAGE
FOR THE
NEW JERSEY DEPARTMENT
OF ENVIRONMENTAL PROTECTION
TRENTON, NEW JERSEY 08625

<u>FIELD SAMPLE #</u>	<u>LABORATORY SAMPLE #</u>	<u>SAMPLE LOCATION</u>	<u>DATE & TIME OF COLLECTION</u>
<u>STE 017</u>	<u>6857</u>	Foot of	<u>5-5-88 12:20</u>
<u>STE 018</u>	<u>6858</u>	13th Street	<u>5-5-88 14:00</u>
<u>STE 019</u>	<u>6859</u>	Carlstadt, NJ 07072	<u>5-5-88 6:00</u>

LABORATORY NAME: NET Mid-Atlantic, Inc.

CERTIFICATION #: 08153

SUPERVISOR/MANAGER SIGNATURE: _____

PRINTED NAME: Rodney T. Miller

NET MID-ATLANTIC, INC. JOB NO. 88-1002 SAMPLE RESULTS

	CONCENTRATION (mg/kg and ppm)		
TARGETED COMPOUNDS	STE 017	STE 018	STE 019
TOLUENE	2,000	17,000	1,300
ETHYLBENZENE	3,400	7,100	1,800
TOTAL	5,400	24,100	3,100
NON-TARGETED COMPOUNDS	ESTIMATED CONCENTRATION (mg/kg and ppm)		
XYLENE ISOMER	17,000	26,000	6,700
XYLENE ISOMER	11,000	11,000	3,800
TOTAL	28,000	37,000	10,500
TARGETED & NON-TARGETED COMPOUNDS	ESTIMATED CONCENTRATION (mg/kg and ppm)		
TOTAL	33,400	61,100	13,600



LEGAL
Harrington

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
METRO BUREAU OF REGIONAL ENFORCEMENT
2 BABCOCK PLACE
WEST ORANGE, NEW JERSEY 07052

GEORGE G. McCANN, P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

May 6, 1988

Mr. Dennis Space
Senior Vice President and General Manager
Arsynco, Incorporated
P.O. Box 8
Foot of 13th Street
Carlstadt, NJ 07072

Re: Compliance Evaluation Inspection
Arsynco, Incorporated
NJPDES No. NJ0030970
Carlstadt/Bergen County

Dear Mr. Space:

A Compliance Evaluation Inspection of your facility was conducted by a representative of this Division on April 13, 1988. A copy of the completed inspection report form is enclosed for your information.

Your facility received a rating of "UNACCEPTABLE" due to the following deficiencies:

1. The facility's Discharge Monitoring Report (DMR) for the period December 1, 1987 to February 29, 1988 has revealed that the maximum and average effluent limitations for Total Volatile Organics (TVO's) were exceeded at DSN 002.
2. The TVO's as reported on the DMR's are being calculated using improper flow rates in violation of Part III-L, Page 1 of 1 of the facility's NJPDES permit. TVO concentrations must be calculated using the instantaneous flow rate recorded when the required monthly TVO grab sample is obtained.
3. Inspection and maintenance of the treatment system for DSN 002 is not being performed in violation of N.J.A.C. 7:14-2.5(A)5, which requires that "The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment works, facilities, and systems of treatment and control

ATTACHMENT D

(and related appurtenances) for collection and treatment which are installed or used by the permittee for pollution control and abatement to achieve compliance with the terms and conditions of the permit."

4. Drums containing various substances are improperly stored and labeled throughout the site.
5. The facility's D.P.C.C./D.C.R. plan is due for revision. For questions regarding this plan, contact Mr. Suyra Shah of the Bureau of Industrial Waste Management at (609) 292-0407.
6. A Notice of Violation was issued to Arsynco during this inspection which addressed poor housekeeping throughout the site which has resulted in the discharge of pollutants to the surface waters of the State via storm water runoff.

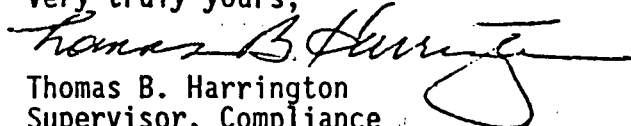
Since the deficiencies cited are presently, or could, in the future, adversely affect effluent quality, you are DIRECTED to institute measures to correct the deficiencies. The written report concerning specific details of remedial measures to be instituted, as well as an implementation timetable, must be submitted to this Department and USEPA, Permits Administrative Branch, within thirty (30) calendar days of the date of this correspondence.

Both the New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq.) provide for substantial monetary and criminal penalties in cases of permit violations.

Please direct all correspondence and inquiries to Kathleen Beyer, the Environmental Specialist responsible for this case, who can be reached at (201) 669-3900 or by letter through this Division.

Failure to fully comply with the above will result in the initiation of enforcement action by this Department and/or the United States Environmental Protection Agency. This shall in no way be construed, however, to indicate any exemption on your part from possible penalties for violations indicated by the Compliance Evaluation Inspection, as stated above.

Very truly yours,


Thomas B. Harrington
Supervisor, Compliance
Monitoring Unit
Metro Bureau of
Regional Enforcement

IN THE MATTER OF :
ARSYNCO INCORPORATED :
FOOT OF 13TH STREET :
CARLSTADT, N.J. 07072 :
LOG #A880363 MPA, CDS :

ADMINISTRATIVE ORDER AND
NOTICE OF CIVIL ADMINISTRATIVE
PENALTY ASSESSMENT

This ORDER and NOTICE are issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (the "Department") by N.J.S.A. 13:1D-1 et seq., and the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq. (the "Act"), and duly delegated to the Assistant Director for Enforcement of the Division of Environmental Quality pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. As the result of an investigation conducted on March 18, 1988, the Department has determined that at your facility located at the Foot of 13th Street, Boro of Carlstadt, Lot(s) 1E, Block(s) 146, County of Bergen, State of New Jersey, (ID #00098) you constructed, installed, or altered and operated the following equipment without obtaining the required Permit(s) to Construct, Install or Alter Control Apparatus or Equipment and Certificate(s) to Operate Control Apparatus or Equipment, in violation of N.J.A.C. 7:27-S.3(a)&(b):

Croll Reynolds packed tower air stripper.

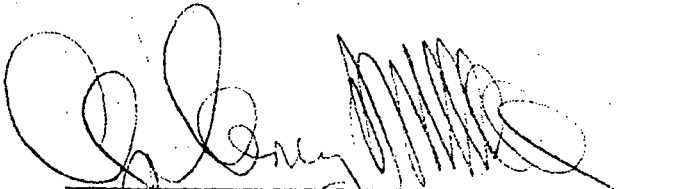
ORDER

2. NOW, THEREFORE, IT IS HEREBY ORDERED THAT on or before May 10, 1988, you obtain the required Permit(s) and Certificate(s) for the equipment listed in Paragraph 1 above. If the required Permit(s) and Certificate(s) are not obtained by the above date, you must cease installation/operation of such equipment until the Permit(s) and Certificate(s) are obtained. Such Permit(s) and Certificate(s) may be obtained by submitting application(s) VEM-003 and VEM-004 to the Bureau of Air Pollution Control.
3. Based upon the above FINDINGS, and a review of the entire matter, the Department hereby assesses a Civil Administrative Penalty against you in the amount of \$400.00. Payment must be submitted to the Department within twenty (20) calendar days of receipt of this Order and Notice unless you request a hearing in accordance with the provisions of Paragraph 4 below. Payment must be made to the Department at the address listed in Paragraph B of Attachment I.

ATTACHMENT E

4. Pursuant to N.J.S.A. 26:2C-14.1 you are entitled to a hearing if aggrieved by this Order and Notice. Application for such a hearing must be received by the Department within twenty (20) calendar days from receipt of this Order and Notice. In applying for such hearing, you must furnish the Department with the information listed in Paragraph A of Attachment I. If no request for a hearing is received within twenty (20) calendar days, this Notice shall become a final Order and the Penalty will then become due and payable. A hearing request does not stay the terms or effect of this Order.
5. The provisions of this Order and Notice shall be binding on you, your principals, agents, employees, successors, assigns, tenants and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.
6. No obligations imposed by this Order and Notice, with the exception of Paragraph 3, are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations imposed by this Order shall constitute continuing regulatory obligations imposed pursuant to the police powers of the State of New Jersey, intended to protect the public health, safety and welfare.
7. NOTICE IS GIVEN, that pursuant to N.J.S.A. 26:2C-19(b) and N.J.S.A. 26:2C-19(d), any person who violates the provisions of the Act, or any code, rule regulation or order promulgated or issued pursuant thereto, or who fails to pay a civil administrative penalty in full, shall be liable to a penalty of up to \$10,000 for the first offense, \$25,000 for the second offense, and \$50,000 for the third and each subsequent offense.

Dated: April 20, 1988



Anthony J. McMahon, Assistant Director
Environmental Enforcement

CERTIFIED MAIL

CLOSURE PLAN

ARSYNCO, INC.
CARLSTADT, NEW JERSEY

EPA ID. NO. NJD 044688935
CP-86-23

Prepared for:

Arsynco, Inc.
P.O. Box 8
13th Street
Carlstadt, New Jersey 07072

Prepared by:

The Earth Technology Corporation
500 Elizabeth Avenue
Somerset, New Jersey 08873

Revised April 1988

ATTACHMENT F

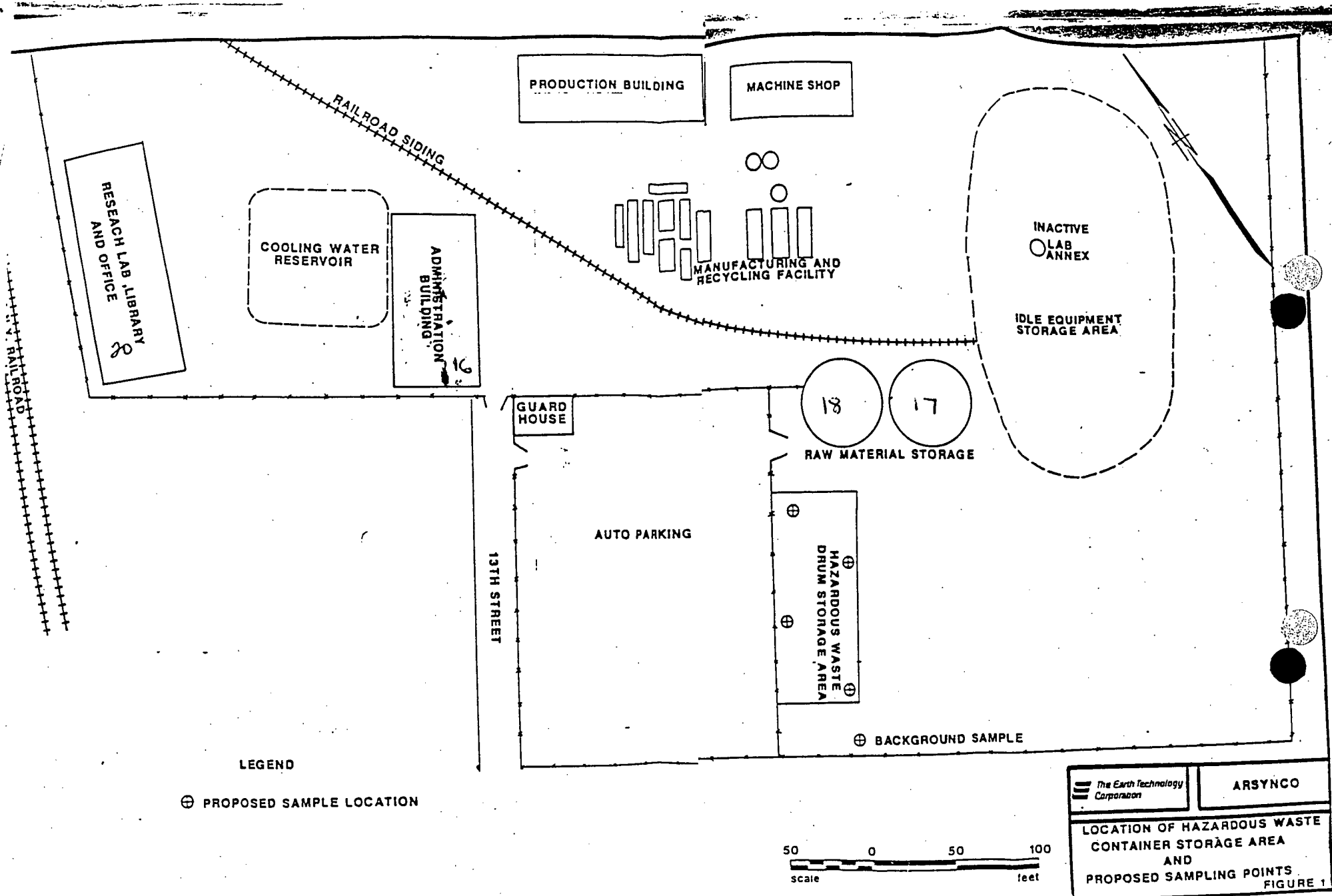
1.0 CLOSURE PLAN - DRUM STORAGE AREA

This closure plan has been developed in accordance with N.J.A.C. 9:26-9.8 requiring the compilation of a closure plan addressing the facility hazardous waste Drum Storage Area. The existing waste storage unit consists of a drum storage area which has interim status to store 25,000 gallons of liquid hazardous wastes in containers. The location of this unit is shown in Figure 1.

This plan minimizes or eliminates threats to human health and the environment. It requires that sampling be conducted and samples analyzed to determine if contamination is present at the storage unit. Any contaminated soil identified will be classified, removed, and disposed as a hazardous waste at an EPA-approved disposal facility. In the event that a spill reaches ground water, the contaminated ground water will be handled in accordance with an engineering design to be determined after delineation of contamination.

A copy of this closure plan will be kept on-file at the Arsynco facility until closure of the storage area has been accepted by NJDEP. In accordance with N.J.A.C. 9:26-9.8(g), Arsynco is notifying the Department of its intent to close the existing drum storage area within 180 days.

A certification that the storage area has been closed in accordance with the NJDEP approved closure plan will be made by both Arsynco and an independent professional engineer, registered in the State of New Jersey. The certification will be submitted to NJDEP, as required, along with copies of the waste manifest.





KEY TO MAP

500-Year Flood Boundary
100-Year Flood Boundary
Zone Designations*

100-Year Flood Boundary
500-Year Flood Boundary
Base Flood Elevation Line
With Elevation In Feet**
Base Flood Elevation in Feet
Where Uniform Within Zone**
Elevation Reference Mark
Zone D Boundary
River Mile

513
(EL 987)
RM7x
•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

***EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
OCTOBER 8, 1976

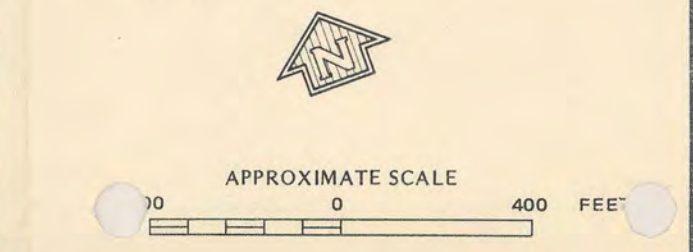
FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
DECEMBER 15, 1982

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD) 1	DESCRIPTION OF LOCATION
RM 7	6.931	Standard USC&GS disk, stamped B62, set in concrete, flush with pavement, on east side of Moonachie Road, approximately 45 feet northeast of intersection of Edstan Drive.
RM 8	6.001	Standard USC&GS disk, stamped D62, set in concrete step of Kramer Brothers Freight Lines building, approximately 210 feet east of intersection of Washington Avenue and State Route 20.

1 National Geodetic Vertical Datum of 1929

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
HACKENSACK MEADOWLANDS DISTRICT,
NEW JERSEY
BERGEN AND HUDSON COUNTIES

PANEL 3 OF 10
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
340570 0003 A

EFFECTIVE DATE:
DECEMBER 15, 1982



Federal Emergency Management Agency

Attachment F

Please note that although Arsynco, Inc. is closing the existing drum storage area, it will continue to operate as a hazardous waste generator after closure. After the closure plan is approved by NJDEP, a new pad will be built and used to accumulate waste on a less than 90 day basis. The closure activities proposed herein are being taken to comply with the Interim Status requirements of NJDEP.

2.0 DRUM STORAGE AREA

The drum storage area is designated for storage of solvents waiting to be reclaimed and residues generated from the recycling and distillation of solvents. The unrecoverable materials, as described by Arsynco, Inc., consist of the residues. The container storage area is surrounded by an 8 foot high cyclone fence and covers approximately 7500 square feet. This area accommodates a maximum inventory of 454 fifty-five gallon drums.

The drum storage area will be closed in accordance with the procedures outlined in Subsection 2.1. Closure of this unit will constitute final closure under this plan.

2.1 CLOSURE OF THE EXISTING DRUM STORAGE AREA

The drummed hazardous wastes remaining in the container storage area at the time of closure will be properly manifested and sent to an EPA-approved facility for off-site disposal. Less than 25 drums are expected to be sent for off-site disposal.

The sampling and analytical program outlined in Subsection 2.1.1 will be implemented to determine the extent of soil contamination in the vicinity of the storage area. Soil displaying contaminant concentrations in excess of NJDEP-acceptable levels will be excavated and disposed off-site as either an industrial or a hazardous waste (depending upon its classification by NJDEP). The excavation will be backfilled with clean fill. All equipment used during the closure will be steam cleaned and the rinsate routed to the facility waste water treatment system. All protective gear which can not be suitably decontaminated will be drummed and disposed of properly.

2.1.1 Sampling and Analytical Program

Sampling Locations and Sampling Procedures

The drum storage area is surrounded on all sides by fill and natural soils. A minimum of four soil samples will be collected from the storage area and one background sample will be taken at the approximate location shown in Figure 1. Background samples will be used to determine the characteristics of the fill in the area. Obviously stained areas adjacent to the storage area shall be sampled independently of and in addition to the designated areas. Discrete samples will be taken from each of the locations to a depth of six inches after any surface gravel has been removed. A portion of each sample will be retained in the event that the NJDEP requests split samples. The depth of sampling has been based principally on the nature of the wastes stored (solvents), and the potential of its migration in the soil. It is felt that the contamination, if present, will be at the highest concentration just below the surface. It would only be necessary to sample soil from greater depths if contamination is found in this zone above acceptable levels.

During sampling, an HNu photoionization detector will be utilized to screen the samples. This will provide a preliminary assessment of the volatility of the constituents in the soil. If volatiles are detected by the HNu, samples will be continuously obtained and screened with the HNu, until the volatile level falls below the detection limit of the instrument. At that point a second sample will be obtained from the borehole and submitted for laboratory analysis.

As it is anticipated that all sampling should be completed during one sample event, one duplicate sample will be selected for analysis. Assuming the same time frame, one field and one trip blank will be utilized to maintain sample quality assurance. The water used for the blanks will originate from the laboratory conducting the analyses and will be analyte-free. The blanks will be analyzed for the same constituents as the soil samples.

The sampling will be performed in accordance with the procedures and methods given in Attachment 1. The recordkeeping procedures outlined in Attachment 2 will be strictly followed during the sampling program.

Analytical Program

Since volatile organics are stored in the drum area, the soil samples will be analyzed for these materials. The analyses will be conducted by Accutest Laboratories, of Dayton, New Jersey, which is a NJDEP certified laboratory. The analyses will be conducted in accordance with the procedures described in Method 8240, in USEPA publication SW-846, "Test Methods for Evaluating Solid Waste, Third Edition" (see Attachment 3 for details). This analytical method includes xylene. A separate analysis for methanol would be added. The analytical results will be presented in the USEPA Contract Laboratory Program

(NJDEP Tier I) format. These results will be compared with an established site background value and the NJDEP recommended guidelines.

2.1.2 Schedule for Closure of the Drum Storage Area

Closure of the drum storage area will be initiated upon approval of the closure plan by NJDEP. Closure of the storage area will be certified by an independent professional engineer, registered in the State of New Jersey.

The closure schedule is shown on Table 1.

Following closure of the storage area, Arsynco will operate a to-be-built drum storage pad in accordance with NJDEP generator requirements; the drums will not be allowed to accumulate for periods exceeding 90 days.

2.1.3 Closure Cost Estimate for the Container Storage Area

The cost associated with the closure activities detailed in the previous subsections is estimated at \$50,545.00. This closure is based upon prices obtained in March 1988. In-house labor will be used to carry out most of the activities covered under the closure plan.

A breakdown of the cost estimate is provided in Table 2.

TABLE 1
SCHEDULE FOR FINAL CLOSURE

	Days					
	0	30	60	90	120	180
Approval of Plan	X					
Removal of all Drums		-----				
Soil Sampling ⁺ and Analysis			-----			
Remedial Investigation*				-----		
Removal of Contaminated Soil				-----		
Verification Sampling ⁺					-----	
Completion of Closure and Certification						-----

* To be conducted if initial sampling identifies contaminated soil.

+ NJDEP will be notified two weeks prior to initiation of sampling activities at the following address:

Bureau of Hazardous Waste Management
Division of Hazardous Waste Engineering
401 E. State Street
CN 028
Trenton, NJ 08625
(609) 292-9880

J.S.
interesting information for [unclear]
Please file
12-23-87

Let's protect our earth



Shotwell
02-05-12

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

John J. Trela, Ph.D., Director
401 East State St.
CN 028
Trenton, N.J. 08625
609-633-1408

21 DEC 1987

MEMORANDUM

TO: David C. Mack, Administrator
Spill Compensation Fund

THROUGH: Ronald T. Corcoran, Assistant Director
Hazardous Waste Enforcement *Element* *Corcoran*

FROM: Karl J. Delaney, Chief
Bureau of Compliance & Technical Services

SUBJECT: Arsynco, Inc.
SFA #240, 240A

This Bureau's Responsible Party Investigations Unit has prepared the attached Responsible Party Investigative Summary for the subject case. In this investigation no responsible party has been identified. Based upon the information available it is our recommendation that this case be closed.

Should you have any questions in this matter, do not hesitate to contact Bruce Venner or Doug Stuart at 633-0700.

Attachment

jmh

- c. Dave Shotwell, BFO
- John Carnevale, Spill Fund
- Bruce Venner, BCTS
- Doug Stuart, RPIU

ATTACHMENT G

RESPONSIBLE PARTY INVESTIGATIVE SUMMARY

Arsynco, Inc.
Carlstadt, New Jersey

SFA #240, 240A

Case Summary:

During the 1985 Phase II Dioxin Site Investigation Program, Arsynco, Inc., 13th Street, Carlstadt, NJ, was one of twenty three sites sampled to determine dioxin contamination. The final report for that site investigation (attachment #1) confirms that the subject sampling did not reveal the presence of dioxin contamination. Accordingly, no responsible party can be associated with the expenditure of Spill Fund monies utilized at this site.

Contractor: E.C. Jordan Co.
Portland, Maine

Contacts: Anne DeCicco, Technical Coordinator
NJDEP
401 E. State St., 6th Floor
Trenton, NJ
(609) 984-3068

Mike Schuit
NJDEP, ORS
401 E. State St.
Trenton, NJ
(609) 292-2906

Susan Gall
NJDEP, Community Relations
401 E. State St.
Trenton, NJ
(609) 633-1370

Location of Relevant Files:

6th Floor Central Files
401 E. State St.
Trenton, NJ

Financial Information:

Analysis of Expenditures (attachment #2)
Total site costs \$14,402.55

Conclusion:

Due to no hazardous substance identification, a Negative Declaration for a Responsible Party is made. It should be noted that the Authorization 240 and 240A used for this site is also related to other Phase II Dioxin sites.

No breakdown per PAC is possible since PACs were not used during the initial sampling phases for all subject sites.

RPIU Investigation Conducted By:

Doug Stuart, Sr. Environmental Specialist
NJDEP, BC&TS
401 E. State St., 5th Floor
Trenton, NJ
(609) 633-0708

Attachments

1. Excerpt from Phase II Dioxin Site Investigation Final Report for Arsynco, Inc., Carlstadt, NJ, 12/85
2. Analysis of Expenditures, Bureau of Financial and Support Services, 10/31/87

1239 ROUTE 46
PARLIPRANY, N.J. 07054

2 Babcock Place, West Orange, NJ 07052
NOTICE OF VIOLATION

ID NO. NJD044688935

DATE 12/3/87

NAME OF FACILITY Arquico, Inc.

LOCATION OF FACILITY Foot of 13th St, Carlstadt, NJ 07072

NAME OF OPERATOR Wesley Bennett

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION ~~NJSA~~ NJAC 7:26-9.4 (m)
Failing to permit the Department from taking samples
at the facility during the course of an inspection

Remedial action to correct these violations must be initiated immediately and be completed by

12/10/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

M. Sterling
Investigator, Division of Waste Management
Department of Environmental Protection

ATTACHMENT H

374

NOTICE OF VIOLATION

ID NO. NJ D044688935 DATE 11/25/87
NAME OF FACILITY Arcynco, INC.
LOCATION OF FACILITY Foot of 13th Street, Carlstadt, NJ 07072
NAME OF OPERATOR Wesley Bennett

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION failing to inspect hazardous waste storage area daily, NJAC 7:26-9.3(f) & NJAC 7:26-9.4(f) 6 inspection log does not include the TIME of the inspection; NJAC 7:26-9.4(c) iiii failing to conspicuously place "No Smoking" signs near the solvent tank farm storage area NJAC 7:26-7.4(a) 4 iii failing to provide the NJ hauler's registration # on manifest MI-1184475 (10/20/87)

Remedial action to correct these violations must be initiated immediately and be completed by

12/10/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

MAsterlin
Investigator, Division of Waste Management
Department of Environmental Protection

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

5th Fl., 401 E. State St., Trenton, N.J. 08625

2 Babcock Place, West Orange NJ ~~07072~~ 07052

NOTICE OF VIOLATION

ID NO. NJD 044688935DATE 12/8/87 12/7/87NAME OF FACILITY Arsynco, Inc.LOCATION OF FACILITY Foot of 13th St, Carlstadt, NJ 07072NAME OF OPERATOR Wesley Bennett

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION NJAC 7:26-9.8(e) inadequate
closure plan maintained at facility *

Remedial action to correct these violations must be initiated immediately and be completed by

1/8/88. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

* closure plan does not address
the tank ~~from~~ farm where
waste solvents used to be stored
in the past

D. Sterling
Investigator, Division of Waste Management
Department of Environmental Protection

→ (This document results from site inspection done on 11/25/87)

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT

5th FL., 401 E. State St., Trenton, N.J. 08625

2 Babcock Pl, West Orange, NJ 07052

NOTICE OF VIOLATION

ID NO. NJD044688935

DATE 11/25/87

NAME OF FACILITY Arsynco, Inc

LOCATION OF FACILITY F.O.T. of 13th St, Carlstadt, NJ 07072

NAME OF OPERATOR Wesley Bennett

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION NJAC 7:26-9.4(b)2c waste analysis plan lacks parameters for which each waste stream will be analyzed +
NJAC 7:26-9.4(g)1-6 no personnel training in hazardous waste management procedures; NJAC 7:26-9.4(g)8 no semi-annual drills conducted - - - ; NJAC 7:26-9.7(g) contingency plan ~~but~~ does not describe the LOCATION & a PHYSICAL DESCRIPTION of each emergency equipment, NJAC 7:26-9.8(e)2 closure plan does not have

Remedial action to correct these violations must be initiated immediately and be completed by

12/10/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

x doesn't address "unknown waste streams".

T. Sterling

Investigator, Division of Waste Management
Department of Environmental Protection

T. Roy A. Sterling
201-669-3960

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
5th Fl., 401 E. State St., Trenton, N.J. 08625

NOTICE OF VIOLATION

ID NO. NTD 044688935 DATE 11/25/87
NAME OF FACILITY Arsynco, INC
LOCATION OF FACILITY Foot of 13 ST, Carlstadt, NJ 07072
NAME OF OPERATOR Wesley Bennett

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION an estimate of the maximum inventory of
wastes in storage, NJAC 7:26-9.4(d)2 storing hazardous
wastes in leaking containers,* NJAC 7:26-9.4(d)4c storing
hazardous wastes in containers that are not securely closed
NJAC 7:26-9.4(d)3 storing hazardous wastes in containers
made of incompatible materials,** NJAC 7:26-9.4(d)4d storing
hazardous waste in unlabeled containers, NJAC 7:26-9.4(d)

Remedial action to correct these violations must be initiated immediately and be completed by

12/10/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

* also in very corroded containers

** 2 drums were completely eaten
through by waste material

Asterling
Investigator, Division of Waste Management
Department of Environmental Protection

NOTICE OF VIOLATION

ID NO. NJD 044688935 DATE 11/25/87
NAME OF FACILITY Arsynco, INC.
LOCATION OF FACILITY Foot of 13th ST, Carlstadt, NJ 07072
NAME OF OPERATOR Wesley Bennett

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION NJSA § 58:10-23.11(c) being responsible
for the discharge of hazardous substance(s) in the
solvent tank farm (ground) and from machine parts
onto the ground outside of the tank farm area.
NJSA 58:10-23.11(c) failure to notify the Department
about the discharges above-mentioned
~~NJSA 58:10-23.11(c)~~

Remedial action to correct these violations must be initiated immediately and be completed by

12/10/87. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

Discharge involve, at least,
motor oil

T. Steinhilber
Investigator, Division of Waste Management
Department of Environmental Protection

INSPECTION REPORT

REPORT PREPARED FOR:

- ☒ Generator
☐ Transporter
☒ HWM (TSD) Facility
☒ Land Ban Facility

FACILITY INFORMATION

Name: ARSYNCO, INC.
Address: FOOT OF 13th ST
CARLSTADT, NJ 07072
Lot: 1 Block: 91
County: Bergen
Phone: 201-933-2323
EPA ID #: NJDP44688935
Date of Inspection: 11/25/87 & 12/3/87

PARTICIPATING PERSONNEL

State or EPA Personnel: JEFFREY STERLING
ARNOLD SCHIFF (12/3/87)
Facility Personnel: WESLEY BENNETT
Manager, Regulatory Affairs
Report Prepared by Name: Jeffrey A. Sterling
Region: Metropolitan
Telephone #: 201-669-3960
Reviewed by: _____
Date of Review: _____

11/25/87
In @ 1000 hr
out @ 1700 hr

FACILITY NAME: ArSynco, Inc.

ADDRESS: Foot of 13th ST.

Carlstadt, NJ 07072

TIME IN: 1000 hr } 12/3/87 COUNTY: Bergen

TIME OUT: 1700 hr } EPA ID: NJD 044688935

DATE OF INSPECTION: 11/25/87 & 12/3/87

PHOTOS TAKEN

☒ YES

☐ NO

If yes, how many? _____

SAMPLE TAKEN

☐ YES

☒ NO

NO. OF SAMPLES _____

NJDEP ID #

(company wouldn't permit the taking of samples)
on 12/3/87

MANIFESTS REVIEWED

☒ YES

☐ NO

Number of manifests in compliance 1

Number of manifests not in compliance 1

List manifest document numbers of those manifests not in compliance.

MI-1184475 (10/20/87) no NJ hauler's registration
number on manifest

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

A RCRA inspection was conducted at Arsynco Inc (NJDO44688935) on 11/25/87 and 12/3/87. Mr. Arnold Schiff, NJDEP, accompanied the inspector on 12/3/87. On both days the facility was represented by Mr. Wesley Bennett, manager of regulatory affairs. This facility is located in Carlstadt on 13th Street.

Mr. Bennett indicated that the plant has been in existence since at least 1907 and that prior to 1969 it was owned by different companies such as "Frie Brothers" and "Commercial Solvents." Arsynco has run this plant since 1969. The facility occupies 12.9 acres. Ten (10) acres are usable and the rest is marshland. Approximately 65 people work at this plant and it operates on three (3) shifts.

Arsynco is a batch chemical manufacturer of various specialty chemicals. The chemicals (compounds) that Arsynco makes are not final products, but are intermediate compounds which are used by other manufacturers to create a final product. Approximately seventy-five (75%) of the material manufactured on site is used in the pharmaceutical industry, according to Mr. Bennett. The rest of the chemicals/compounds made at this facility are used by the defense industry (eg to make rocket insulation), the automobile industry, etc.

The manufacturing processes use a lot of solvents.

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

Solvents are used as chemical carriers and ^{as} wash solvents. Arquesco indicated that the solvents used do not become a part of the final products that are manufactured onsite. Various chemical reagents (depending on the batch) are mixed together, along with the appropriate solvents, and are reacted in reactors. After the reactions occur, the products are separated from the reaction medium by filtration, centrifuging, or by being "kicked" out of the reaction medium by the addition of certain chemicals.

After the reactions occur in the presence of the solvents, the spent solvent (i.e. wash solvents or solvents filtered from the products, etc.) are removed and are either directly distilled or are temporarily stored in tanks or drums prior to being redistilled. Arquesco stressed that the spent solvents (reaction by-products) are valuable because they can be re-used after distillation and/or they contain residual products which may be recovered by distillation. The facility also indicated that in some processes, the product is separated from the reaction medium by flashing the solvents off (i.e. the product is the still bottom). In this case the solvent is not "spent" but is merely separated from the product.

Arquesco indicates that the spent solvents that it generates are recovered by onsite distillation.

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SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

Some of the spent solvents are stored in above ground tanks prior to being recycled for periods of less than one (1) week, according to Arsynco. The company said that the spent solvents cannot be re-used in their production processes unless they are re-distilled, i.e., recycled. Arsynco said that they did not store any of their spent solvents in either of their two (2) tank farms. The company indicated that their tank storage of spent solvents was accomplished in four (4) above ground tanks that were located adjacent to building #8. Arsynco indicated that they also stored spent solvents in 55-gallon drums.

The company indicated that they had three (3) stills onsite. One (1) had a capacity of distilling 1600 gallons per day and two (2) each had a capacity of 1000 gallons/day.

The facility has a large cooling pond onsite (500,000 gallon capacity). This pond ~~was~~ is supplied by an onsite well. The pond supplies noncontact cooling water for use in the plant. The cooling water is returned to the pond after it is used. Occasionally, water is discharged from the pond to Berry's Creek. The company has a DSW/NIPDES Permit for this activity. The number of the permit is NJ0030970.

Arsynco discharges its process waste water to the Joint Wastewater Sewerage Treatment Plant of Rutherford, E Rutherford

SUMMARY OF FINDINGS

FACILITY DESCRIPTION AND OPERATIONS

and Carlstadt. They have a NJPDES/SIPA modification permit (same permit number). All of the company's process waste water flows into an onsite treatment pit which, according to Arsynco, is lined with bricks. The company has no discharge to groundwater permit for this on treatment pit (surface impoundment). Process wastewater which enters this unit is skimmed (to remove solvent layer), pH adjusted, clarified, stripped of VOS (in an stripper), sampled, and discharged to the city sewer. City water is used in the manufacturing process. Well water is used for non-contact cooling.

Arsynco stated that they applied for a discharge to groundwater permit (DSG) for their treatment pit. To date, none has been issued. The Division of Water Resources (NJDEP - DWR) is in the process of issuing a DSW permit to Arsynco. The DWR-Metro Office is actively involved with the "water aspects" of the company. The company also has air permits from the NJDEP. About 135,000 gallons per day of process waste water is discharged to the sewer.

The facility has bulk storage of various hazardous materials (solvents, acids, bases) in their two (2) tank farms. One tank farm stores solvents and fuel (oil & gasoline) and the other stores acids and bases. Solvents are also stored outside of the tank farm in storage tanks. Arsynco indicated that over 700,000 gallons of solvents were

-A-

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

in storage in the tank farm.

The company said that about 90% of the solvents used were recycled and 10% was make-up solvents. About 20,000 lb of solvents ~~are~~ ^{are} used per week at the facility. Examples of solvents used at the company are: xylene, toluene, methylene chloride, chloroform, isopropyl alcohol, methanol, chloroethane, and others.

The site tour revealed that the company's drum management practices were very poor. The company stored hazardous wastes at different locations in the plant. All of the drummed wastes were stored outside of the buildings, exposed to the elements. The wastes at the company were broken down into two (2) types, basically. One type was designated as wastes that would be disposed of at offsite hazardous waste facilities. The other type was the ones that would be recycled onsite.

The company's designated drum waste storage area (for offsite disposal) was located to the south-east of the guard-house next to the parking lot and tanks 17 & 18. These two tanks are used for raw material storage. (See sketch). This waste area was not paved. Part of this area was very swampy. Several drums were stored on pallets in this area. Sixty-one (61) 55-gallon drums were observed in this storage area. Several of these

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

Drums were in very poor conditions. Some were leaking, some were not properly closed, and one had no identification marks (label). Except for the one unlabeled drum in this area, all had hazardous waste labels. Not all of the hazardous wastes were identified though. For instance, some had hazardous waste labels which also stated "to be identified". Some of the corroded drums were so badly corroded that the drums ~~were~~ appeared to be in danger of collapsing (severe flaking). Photographs of the leaking drums and severely corroded drums were taken.

The solvent tank farm was inspected and its base was not impermeable as it was virgin soil. The soil in the tank farm showed visual signs of soil contamination from solvents and/or fuel oil. Arsyco would not permit the inspectors to take samples. Mr. Bennett, Manager of Regulatory Affairs, said that he would have to get the permission of his boss before he could permit any sampling. Pictures of the tank farm showing soil contamination ~~was~~ were taken. The soil beneath tank TS-69 showed the greatest evidence of soil contamination. Soil contamination was also observed outside the tank farm area.

Lots of drums were noted in the areas near building #8, 15, 3 and 1. These drums, according to Arsyco, contained spent solvents that were about to be recycled.

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

and waste that were destined for disposal. ~~The~~ The drums that contained spent solvents (for recycling) ^{were} ~~are~~ not considered to be hazardous wastes and consequently had no hazardous waste labels on them. They also contained no accumulation start dates. In the area next to building #8 and the tank farm for acids and bases, at least 34 drums with hazardous waste labels (Arspico said they contained hazardous wastes) ~~were~~ were being stored. Several were ~~are~~ very corroded. Two (2) were so badly corroded that their contents could be seen. Pictures of these severely corroded drums were taken. The two (2) severely corroded drums were labeled "Trimellitic anhydride chloride" (corrosive). Mr. Bennett stated that this was formed from the reaction of ~~from~~ Trimellitic anhydride and chlorine. This product (TMAC) reacts with water to form HCl (hydrochloric acid). He said the two badly corroded drums resulted from the TMAC getting contaminated with water (hence the TMAC couldn't be sold). The TMAC (2 drums were being managed as hazardous wastes by Arspico).

Four (4) above ground tanks were observed next to building #8 (picture taken). Their designations and capacities are as follows:

TS8-1 (4,000 gal) → stores toluene

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

TS8-2 (4,000 gal) → stores isopropyl alcohol (IPA)

TS8-3 (4,000 gal) → IPA

TS8-4 (4,000 gal) → (no indication of what was stored)

Arspico said that the above four (4) tanks were used to store "dirty solvents" prior to being redistilled. These tanks had no hazardous waste labels on them and they also had no containment system. Two other tanks, each with a capacity of 10,000 gallons, were stored nearby. These are identified by as TS8-5 and TS8-6. These will be used for the storage of "dirty solvents" in the future. They are not being used at this time because the pad beneath them need to be reinforced to support the weight of the tanks when they are full*. Pictures were taken of these tanks.

The settling pit was observed. The skimmer was observed. The solvent that was skimmed off the water surface was placed in 55 gallon drums. These are later taken to be distilled. These drums had no hazardous waste labels or start dates. This area (settling pit) was also photographed.

The paperwork review revealed that the company had many deficiencies. The facility had no evidence to show that the appropriate plant personnel received adequate personnel training (regarding hazardous waste management). The facility had no written waste analysis procedures to address unknown waste streams. (Many "unknown" hazardous

* according to Mr. Bennett.

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SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

wastes were observed onsite. The facility didn't inspect their containerized hazardous wastes on a daily basis; their closure plan did not address the solvent storage tank farm area which used to be used to store spent solvents. The claim that Arsynco used to store waste solvents in their tank farm is documented in the RCHA inspection reports dated 9/17/81, & 4/12/84, ~~and 10/16/85~~. The report dated 9/17/81 cited Tank TS-78 as being used to store spent solvent. This report also mentioned spillage on the soil in the tank farm from tank TS-78. The report dated 4/12/84 cited tanks TS-100 & TS-78 as being used to store spent solvents. ~~The report dated 10/16/85 cited~~

Additionally, an ~~not~~ ^{inspection} memo dated 3/13/81 (attached) documents that Arsynco used to store waste solvents (for onsite incineration) in tanks #69, 71, and 78. These tanks are in the tank farm area.

During the inspection, ~~Mr.~~ Arsynco was told that their spent solvents are considered to be hazardous waste. The Bureau of Hazardous Waste Engineering, in a letter dated 10/16/87, informed Arsynco that they may be exempt from the permitting requirements if they comply with NMAC 7.25-9.3(b) with regards to their storage tanks for the spent solvents. Additionally, Arsynco was made aware of

-A-

SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS

the requirements pertaining to the exemption granted at NJAC 7:26-9.1(c)10. This exemption requires them to comply with NJAC 7:26-9.3(a) for their containers that store materials (solvents) for recycling.

Asynco was cited for the following:

NJAC 7:26-9.4(b)2i, 9.4(g)1-6, 9.4(g)8, 9.7(g), 9.8(e)2, 9.4(d)2, 9.4(d)4i, 9.4(d)3, 9.4(d)4v, 9.4(d)5, 9.4(f)6, 9.4(e)1iii, 7.4(a)4iii. Also cited were

~~NJA~~ NJSA 58:10-23.11(c) §(e) (Violation of Spill Act)

On 12/3/87 they were cited for violating NJAC 7:26-9.4(m) and on 12/7/87 they were cited for violating NJAC 7:26-9.8(e).

The paperwork review also revealed that Asynco shipped one shipment of hazardous waste offsite in 1987 (10/20/87). This consisted of a shipment of hazardous waste solid, NCS (FO03). In 1986 there was one waste shipment which consisted of 60 drums of C386 & C183 waste types (hazardous waste solids). There were no shipments in 1985 or 1984, according to the company. The manifests for 1986 & 1987 (to date) are attached.

Past inspections (1981, 1984, 1985) cited the same problems but the company has not improved.

A copy of the Haz. Waste Regs was given to Asynco on 12/3/87.

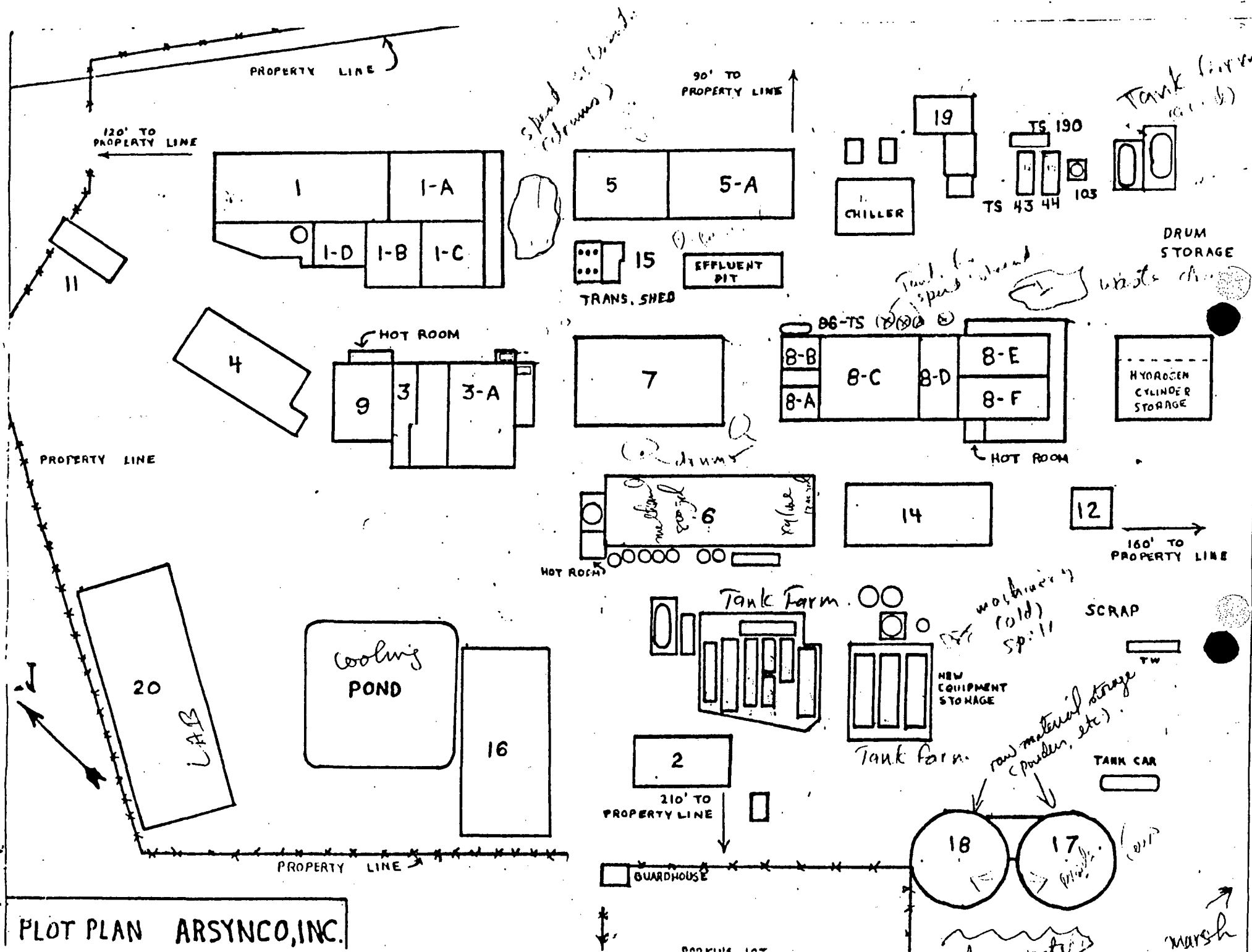
Describe the activities that result in the generation of hazardous waste.

- ① Lab research → many types of wastes
- ② Production processes → various types (depending on batch)

Waste types may change depending on nature of research, etc.

Identify the hazardous waste located on site, and estimate the approximate quantities of each.
(Identify Waste Codes)

- ① bulk storage of waste solvents in 4 tanks (total capacity of 14,500 gallons) → Toluene, IPA.
- ② many drums of spent solvents; (many had no waste labels) since company didn't consider recyclable spent solvents to be haz waste
- ③ 96X55 gallon drums of assorted haz. waste:
 - 30 → "unknown"
 - others have no waste #'s (just haz waste labels)Company assigns waste #'s when drums are shipped offsite.



PLOT PLAN ARSYNCO, INC.



IN THE MATTER OF :
ARSYNCO INCORPORATED :
FOOT OF 13TH STREET :
CARLSTADT, N.J. 07072 :
LOG #A871C05 MRA :

ADMINISTRATIVE ORDER AND
NOTICE OF CIVIL ADMINISTRATIVE
PENALTY ASSESSMENT

This ORDER and NOTICE are issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (the "Department") by N.J.S.A. 13:1D-1 et seq., and the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq. (the "Act"), and duly delegated to the Assistant Director for Enforcement of the Division of Environmental Quality pursuant to N.J.S.A. 13:1D-4.

FINDINGS

1. As the result of an investigation conducted on June 2, 1987, the Department has determined that at your facility located at the Foot of 13th Street, Eero of Carlstadt, Lot(s) 1E, Block(s) 146, County of Bergen, State of New Jersey, (ID #00098) you used the equipment and/or control apparatus associated with Permit(s) to Construct, Install or Alter Control Apparatus or Equipment and Certificate(s) to Operate Control Apparatus or Equipment (P & CT #048667) without fulfilling all conditions and provisions of the Permit(s) and Certificate(s), in violation of N.J.A.C. 7:27-8.3(e)1 by producing yellow dye in Reactor #248 using orthochloro toluene, phthalic anhydride, methanol and methyl quinoline as raw materials. Orthochloro toluene, phthalic anhydride, methanol and methyl quinoline are not listed as raw materials on P/CT #048667.

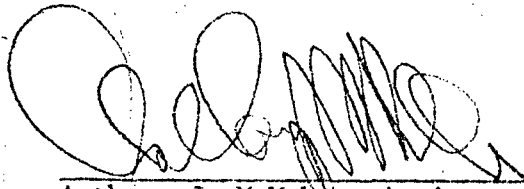
ORDER

2. NOW, THEREFORE, IT IS HEREBY ORDERED THAT on or before September 1, 1987, you cease operation of the equipment listed in Paragraph 1 above or operate said equipment in accordance with the above Permit(s) and Certificate(s) or obtain the required Permit(s) and Certificate(s) for such equipment. Such Permit(s) and Certificate(s) may be obtained by submitting application(s) VEM-003 and VEM-004 to the Bureau of Air Pollution Control for approval.
3. Based upon the above FINDINGS, and a review of the entire matter, the Department hereby assesses a Civil Administrative Penalty against you in the amount of \$400.00. Payment must be submitted to the Department within twenty (20) calendar days of receipt of this Order and Notice unless you request a hearing in accordance with the provisions of Paragraph 4 below. Payment must be made to the Department at the address listed in Paragraph B of Attachment I.

ATTACHMENT J

4. Pursuant to N.J.S.A. 26:2C-14.1 you are entitled to a hearing if aggrieved by this Order and Notice. Application for such a hearing must be received by the Department within twenty (20) calendar days from receipt of this Order and Notice. In applying for such hearing, you must furnish the Department with the information listed in Paragraph A of Attachment I. If no request for a hearing is received within twenty (20) calendar days, this Order and Notice shall become a final Order and the Penalty will then become due and payable. A hearing request does not stay the terms or effect of this Order.
5. The provisions of this Order and Notice shall be binding on you, your principals, agents, employees, successors, assigns, tenants and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.
6. No obligations imposed by this Order and Notice, with the exception of Paragraph 3, are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations imposed by this Order shall constitute continuing regulatory obligations imposed pursuant to the police powers of the State of New Jersey, intended to protect the public health, safety and welfare.
7. NOTICE IS GIVEN, that pursuant to N.J.S.A. 26:2C-19(b) and N.J.S.A. 26:2C-19(d), any person who violates the provisions of the Act, or any code, rule regulation or order promulgated or issued pursuant thereto, or who fails to pay a civil administrative penalty in full, shall be liable to a penalty of up to \$10,000 for the first offense, \$25,000 for the second offense, and \$50,000 for the third and each subsequent offense.

Dated: August 12, 1987



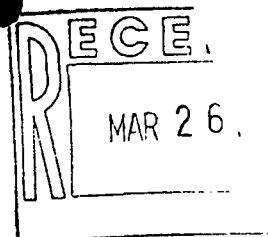
Anthony J. McMahon, Assistant Director
Environmental Enforcement

CERTIFIED MAIL

12-5-87



P.O. Box 8 • Carlstadt, N.J. 07072
201-933-2323



March 9, 1987

New Jersey Department of
Environmental Protection
Division of Waste Management
North Region
1259 Route 46
Parsippany, New Jersey 07054

Gentlemen:

WRITTEN REPORT OF INCIDENT
7:26-9.7(L)9 - CONTINGENCY PLAN EMERGENCY PROCEDURES

- I. Arsynco, Inc.
P. O. Box 8
Foot of 13th Street
Carlstadt, New Jersey 07072
(201) 933-2323
- II. Same as above.
- III. Sunday, February 15th, 1987, at approximately 5 p.m. the guard noted that there appeared to be smoke coming from the front part of Building No. 8 (west side) and the sprinkler system was on. The guard immediately called the Fire and Police Departments. The Fire Department did not find any sign of a fire but the sprinkler system was on, steam coming from the water hitting the steam pipes and fumes in the front part of the building. Since there was no fire, the Fire Department turned the sprinkler system off but left a small water line on. We found that there had been a pressure build up and release in Reactor S-224 resulting in the breakage of the glass column on S-224 and the release of approximately 200 gallons of material to the floor and drain. The drain is connected to our treatment pit.

ATTACHMENT K

- IV. 2-Nitro-N (2-Hydroxy Ethyl) Aniline (C.A.S. No. 4926-55-0)
- V. No injuries.
- VI. 2-Nitro-N (2-Hydroxy Ethyl) Aniline is not a hazardous material. (It is a hair dye.) It has a melting point of 72°-75°C and is soluble in water. This release did not cause damage to the environment or to human health.
- VII. There was 200 gallons of material spilled on the floor and into the drain that is connected to our treatment pit.
- VIII. The 200 gallons on the floor and in the drain was washed down with water. The drain is connected with our treatment pit. Our treatment pit is equipped to remove oil and grease, pH adjustment, solid separation and the water is air stripped before being discharged to the sewage treatment plant. Five sprinkler heads were replaced on Tuesday morning, February 17th, 1987, and the sprinkler system was turned on.
- IX.
 1. We have manufactured this product for over twenty years. After extensive lab work, we changed the process to eliminate a chlorinated solvent. This was the fourth batch that was run using our new process. We had no problems with the first three batches. The only thing that was done with the fourth batch was to extend the reaction time by 12 hours. We ran this batch for 60 hours instead of 48 hours. In the lab we found that the majority of the reaction was over in 48 hours and running the reaction for 100 hours did not result in any problems. The reaction is kept at 70°C for 48 hours and on this batch the reaction time was over with at 11 a.m. Saturday, February 14th, 1987; because the plant was working, it was decided to continue heating until 11 p.m. Saturday night. At the end of this time the heat was turned off and the batch left stirring. The incident happened at approximately 5 p.m. Sunday, February 15th, 1987.
 2. We have a sample from this batch when the reaction time was finished. We are running this sample in the lab to see if anything will happen if this sample is heated for sixty hours.

REPORT NARRATIVE

This report contains the results of the analysis of samples by NET Mid-Atlantic, Inc. for the New Jersey Department of Environmental Protection (NJDEP). The samples were from case number 02-05-12. The samples were received by the laboratory on May 5, 1988 and analyzed for Purge and Trap Volatiles (PAT-VOA). There is a laboratory chronicle provided which lists the samples associated with this report.

The facts below are noncompliance aspects of the data or useful information about the samples.

1. The Trip Blank was not analyzed per Mr. Wayne Howitz's instructions.
2. These samples were prepped as medium level samples because of matrix interference evident in the appearance of the samples. A medium level sample is prepped by taking 4 grams of soil and adding 10 mls of methanol. Then an appropriate volume of methanol is withdrawn and sparged (i.e. 100 ul or less). The detection level is raised. Furthermore, dilution was required and this increased the detection level even more.
3. The Quality Control Spike for the PAT-VOA analysis was performed on a sample that contained a significant amount of Toluene. For this reason the recoveries and RPDs were outside the control limits for Toluene in the spike.
4. The Method Blank for PAT-VOA analysis (>C9639) contained a significant amount of two Tentatively Identified Compounds (TICs). The blank is a methanol blank and any targets are scaled up 125 fold. Thus the blank should not be considered grossly contaminated with Tentatively Identified Compounds.

000001

ORGANICS ANALYSIS DATA SHEET
VOLATILE ORGANICS ANALYSIS

Sample ID

STE 017

Laboratory: NET Mid-Atlantic, Inc.
Sample Matrix: Non-Aqueous
Concentration: L
Percent Moisture: 27.51

Lab Sample ID No: 6857
Date Sample Received: 5-6-88
Date Extracted: 5-5-88
Date Analyzed: 5-13-88

	ug/kg		ug/kg
Chloromethane	340000 U	1,2-Dichloropropane	170000 U
Bromomethane	340000 U	trans-1,3-Dichloropropene	170000 U
Vinyl chloride	340000 U	Trichloroethene	170000 U
Chloroethane	340000 U	Chlorodibromomethane	690000 U
Methylene chloride	170000 U	1,1,2-Trichloroethane	170000 U
Benzene	170000 U	cis-1,3-Dichloropropene	170000 U
1,1-Dichloroethene	170000 U	2-Chloroethyl vinyl ether	340000 U
1,1-Dichloroethane	170000 U	Bromoform	170000 U
Total-1,2 Dichloroethene	170000 U	Chloroform	170000 U
1,2-Dichloroethane	170000 U	Tetrachloroethene	170000 U
1,1,2,2-Tetrachloroethane	170000 U	1,1,1-Trichloroethane	170000 U
Toluene	2000000	Carbon tetrachloride	170000 U
Chlorobenzene	170000 U	Ethylbenzene	3400000
Bromodichloromethane	170000 U		

U Indicates compound was analyzed for but not detected (eg. 10U), based on necessary concentration/dilution. The number is the minimum attainable detection limit for the sample.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

002015

RD

ORGANICS ANALYSIS DATA SHEET
VOLATILE ORGANICS ANALYSIS

Sample ID

STE 018

Laboratory: NET Mid-Atlantic, Inc.
Sample Matrix: Non-Aqueous
Concentration: L
Percent Moisture: 25.82

Lab Sample ID No: 6858
Date Sample Received: 5-6-88
Date Extracted: 5-5-88
Date Analyzed: 5-13-88

	ug/kg		ug/kg
Chloromethane	3400000 U	1,2-Dichloropropane	1700000 U
Bromomethane	3400000 U	trans-1,3-Dichloropropene	1700000 U
Vinyl chloride	3400000 U	Trichloroethene	1700000 U
Chloroethane	3400000 U	Chlorodibromomethane	6700000 U
Methylene chloride	1700000 U	1,1,2-Trichloroethane	1700000 U
Benzene	1700000 U	cis-1,3-Dichloropropene	1700000 U
1,1-Dichloroethene	1700000 U	2-Chloroethyl vinyl ether	3400000 U
1,1-Dichloroethane	1700000 U	Bromoform	1700000 U
Total-1,2 Dichloroethene	1700080 U	Chloroform	1700000 U
1,2-Dichloroethane	1700000 U	Tetrachloroethene	1700000 U
1,1,2,2-Tetrachloroethane	1700000 U	1,1,1-Trichloroethane	1700000 U
Toluene	17000000 U	Carbon tetrachloride	1700000 U
Chlorobenzene	1700000 U	Ethylbenzene	7100000
Bromodichloromethane	1700000 U		

U Indicates compound was analyzed for but not detected (eg. 10U), based on necessary concentration/dilution. The number is the minimum attainable detection limit for the sample.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

ORGANICS ANALYSIS DATA SHEET
VOLATILE ORGANICS ANALYSIS

Sample ID

STE 019

Laboratory: NET Mid-Atlantic, Inc.
Sample Matrix: Non-Aqueous
Concentration: L
Percent Moisture: 2.11

Lab Sample ID No: 6859
Date Sample Received: 5-6-88
Date Extracted: 5-5-88
Date Analyzed: 5-13-88

	ug/kg		ug/kg
Chloromethane	260000 U	1,2-Dichloropropane	130000 U
Bromomethane	260000 U	trans-1,3-Dichloropropene	130000 U
Vinyl chloride	260000 U	Trichloroethene	130000 U
Chloroethane	260000 U	Chlorodibromomethane	510000 U
Methylene chloride	130000 U	1,1,2-Trichloroethane	130000 U
Benzene	130000 U	cis-1,3-Dichloropropene	130000 U
1,1-Dichloroethene	130000 U	2-Chloroethyl vinyl ether	260000 U
1,1-Dichloroethane	130000 U	Bromoform	130000 U
Total-1,2 Dichloroethene	130000 U	Chloroform	130000 U
1,2-Dichloroethane	130000 U	Tetrachloroethene	130000 U
1,1,2,2-Tetrachloroethane	130000 U	1,1,1-Trichloroethane	130000 U
Toluene	1300000	Carbon tetrachloride	130000 U
Chlorobenzene	130000 U	Ethylbenzene	1800000
Bromodichloromethane	130000 U		

U Indicates compound was analyzed for but not detected (eg. 10U), based on necessary concentration/dilution. The number is the minimum attainable detection limit for the sample.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable contamination and warns the data user to take appropriate action.

RD

000017

page 3.

3. We will install a new procedure in the process, that at the end of 48 hours of reaction time at 70°C, water will be turned on to cool the batch down, water will be added to the batch to stop the reaction and to further cool the batch, batches will not be left unattended until the batch is cooled down and water is added.
4. We will not start another batch in the plant until the lab work is finished.

Very truly yours,

ARSYNCO, INC.

Wesley Bennett
Wesley Bennett, Manager
Regulatory Affairs
(Emergency Coordinator)

INVESTIGATION

Case #: 87-02-15-1739

File #: 02 - 05

Investigator: Andrew Tynan / JOE HOYLE Date: 2/15/87 Time Arrived: 1925 Time Departed: 2045

Location: Arsynco Inc. Property Owner: _____

Address: P.O. Box 8 - 13th Street Mailing Address: _____

Carlstadt

Location Phone #: 933-2323

Health Dept. Rep: _____ Phone #: _____

Origin of Complaint: Lt. Higgins (C.P.D.) Phone #: 438-4300

Nature of Complaint: Hydrochloric Acid chemical fire. Company is fighting the fire and will not permit Carlstadt Fire Dept on site.

Weather - Partly cloudy, Winds -West at 12-18 MPH, 10° F.

Findings:

1755 Hrs: I was informed of this incident and requested to respond by Gary Allen.

1920 Hrs: I arrived on site and met with Burt Bellows (C.F.D. - Chief) Wesley Bennett (Arsynco - Regulatory Affairs) and James Dillon (Arsynco - V.P. and G.M.). By this time, the Fire Dept and Company representatives had toured the inside of Building #8 and determined that a sprinkler head was activated but no visible fire or evidence of a fire was apparent. Visibility was poor - as a result of water contacting exposed steam lines.

Additional information was secured from the Company representatives. Building #8 is a four floor building used for batch manufacturing. It contains several Pflaudler glass lined reactors. On this Date, it was unattended, but several reactions were on hold since February 13 for the three day weekend. It had not been verified, but that area could have been manufacturing a hair dye or a pharmaceutical intermediate.

1700 Hrs: (approximately) Local police observed a smoking condition from this building. The Fire Dept responded and observed white/yellow smoke emanating from the building and blowing into the Meadowlands. No evacuations were conducted either on or off property.

ATTACHMENT L

1950 Hrs: Trenton Dispatch was updated.

2000 Hrs: The building was reentered by Company representatives, Joe Hoyle, and myself. The building was ventilated and visibility had improved. There was no odor within the building, but as entry was gained to the affected area, a brown oily liquid was evident coating all equipment within a given area. By this liquid's stain, it appears that it had been blown from a specific source in the building (i.e. shaded areas were protected). This material had a pH Greater than 10 and could not be identified by Company Reps. It was decided to exit the building. It was assumed, by the flowing water, that a line froze and burst. Company Reps decided against shutting down the cooling water supply in the event that other vessels needed to be cooled. The runoff of the pH was 7-8 and would enter the chemical on-site sewer when thawed.

The company believed that a crew would enter the building in the A.M. to determine the exact cause of the incident. At this time, all indications are that a vessel or relief device ruptured within the building. No off-property emissions were occurring.

2030 Hrs: Update Gary Allen.

2045 Hrs: Secure from scene.

February 17, 1987

1000 Hrs: I spoke to Wes Bennett. The cause of the incident was traced to a 1,000 gallon reactor S #224. This contained approximately 500 Gallons of the completed product 2 nitro - N (2 Hydroxyl Ethyl) Aniline, CAS #492655-0, a hair tint. The reaction involves Methanol Amine and Ortho Chloro Nitro Benzene and results in 92% conversion. It was determined that the glass riser leading to a condensor and possibly the vessel's rupture disc, shattered and released the product. The cause of overpressurization is unknown at this time. This product has been manufactured here for approximately 15 years, but the process has recently been changed to eliminate the solvents Trichloroethylene and Isopropanol. This was the fourth batch of the new process. The vessel was agitated before the incident to prevent crystalization.

The company will have their individuals in the building conducting the cleanup today.

As information into the cause is determined, a company report will be forwarded to the office.

Conclusions: A reaction in a hair tint product, while still in its reactor, caused the failure of the reactor or its associated glassware and its release to the interior building. Cause is still undetermined, and the company is performing a cleanup.

PERFORMANCE AUDIT INSPECTION REPORT

Arsynco, Inc.
13th Street
PO Box 8
Carlstadt, New Jersey

NJ 003 0970

April 9, 1986

Participating Personnel:

Environmental Protection Agency
Al Hernandez, Environmental Engineer
Kate Donnelly, Environmental Engineer
Mike Ferriola, Environmental Scientist

Arsynco Inc.
Wesley Bennett, Manager Regulatory Affairs

New York Testing
Reno Gigante, Lab. Director

Report Prepared by:

Al Hernandez *Al Hernandez* *Apr. 21 1986*
Al Hernandez, Environmental Engineer
Source Monitoring Section

Approved for the Director by:

Richard D. Spear *RD Spear*
Richard D. Spear, Chief
Surveillance & Monitoring Branch

ATTACHMENT M

Report

Objective

This performance audit inspection was conducted to determine the quality and reliability of the self-monitoring data submitted by Arsynco Inc. of Carlstadt, New Jersey in fulfillment of the requirements of NPDES Permit No. NJ 003 0970.

Plant Description

The Arsynco facility manufactures organic speciality chemicals by batch processes. The facility employs 60 workers and operates 24 hours/day, 5 days/week. At the time of this inspection, operations were at about 50 percent of full production.

The facility uses two separate process schemes for production. Products which are solids are manufactured by reacting the raw materials followed by subsequent crystallization, drying and milling. The product is then packaged for shipping. Liquid products only require distillation after reaction with the raw materials.

List of Products and Raw Materials (Arsynco Inc.)

Major Products (150,000 to 200,000 lbs/yr).

Name

Raw Materials Used

Phenol Propanol Amine -
Propylene Imene -
Sima -

Propanol, toluene, HCL
Monoisopropanol, Amine Sulfate
Sodium, Methyl Acetamide,
Methyl Vinyl dichlorasilane

Minor Products (10,000 to 1,000 lbs/yr).

Homo Methyl Salicylate -
Hair Dyes -
Pigments -
Dibenzyl dimethyl Amine -

TriMethyl Cyclohexanol, Methyl Salicylate
Nitro Floro Alinene, Mono Ethanol Amine
Phthalic Anhydride, 1,8 DiAmino Naphthalene
DiMethyl Amine, Benzyl Chloride

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Most of the water used within the facility is well water used for non-contact cooling at a rate of 112,623 GPD. All other water from the facility is supplied by the Carlstadt Water Authority at the rate of 32,720 GPD. The facility does not pretreat it's water prior to use.

The permittee maintains two active discharges:

Discharge 001 leads to Berry's Creek. This discharge is composed of non-contact cooling water from condensers, heat exchangers, vessel jackets and vacuum generation equipment. The facility maintains a half million gallon pond which is used as a reservoir. The pond's level is maintained by a level controller which automatically operates a deep well pump to charge the pond with make-up water. Water from the pond is pumped to an elevated water tower. From this water tower the water flows by gravity to the facilities process equipment. Cooling water is finally sent to the pond for reuse.

- At the time of this inspection no flow was observed from Discharge 001. The facility stated that flow for this discharge generally averages about 5,000 gal/month.

Discharge 002 leads to the Rutherford, Carlstadt Joint Meeting sewage Authority. This discharge is composed mostly of wastewater used for chemical manufacturing, raw material dilution, vessel washing, boiler make-up water, fire and sanitary water. Prior to discharge, water is sent to an effluent basin (referred as "The Pit"). At the basin, suspended solids are settled out and floating solids with solvents (Xylene, toluene) are recovered by the use of floating skimmers. PH is controlled at the basin by the manual addition of caustic or acid solutions.

- At the time of inspection the skimmers used in the effluent basin seemed not to be functioning properly.
- The effluent basin was last cleaned in July of last year. The facility reported that 5,000 gal/sludge were removed, consisting of 10 to 12 percent solids. The composition of the solids were said to be 43 percent silica and 42 percent calcium. This sludge is disposed as hazardous waste by Waste Conversions of Pennsylvania.
- The facility is in the process of installing an automatic pH control system and hopes to have it on line by July 1 of this year. The permittee admitted difficulty in the manual control of pH.

New York Testing of Westbury, New York performs the following analyses for Arsynco; COD, TSS, and Petroleum hydrocarbons. The facility personnel collect their own samples with bottles and preservatives supplied by New York Testing.

Arsynco's in-house laboratory performs the following analysis; temperature and pH.

* See Findings and Conclusions section of this report for Lab Related Deficiencies.

Flow is measured automatically by the use of a weir, transponder, flow meter and totalizer.

A PCS retrieval edit report submitted on March 21, 1986 showed the facility as not reporting flow on the following dates: June 30, 1984, July 31, 1984, January 31, 1985, February 28, 1985. This is due to the permittee leaving a blank space on the discharge monitoring reports to represent zero flow. All other data submitted on the DMR's for the dates in question were obtained from the analysis of water taken from the pond (samples taken from the pond are not representative).

The PCS retrieval also does not show the modifications made to the permit issued on March 14, 1985. This previous permit required the reporting of temperature, oil and grease, flow, COD and pH. Chromium and zinc are not reported because of the facility's absence of corrosion inhibitors in it's cooling water. The modifications made to this permit require the additional reporting of petroleum hydrocarbons and total suspended solids. The facility has been conducting the analysis for these parameters but has not been reporting the results to EPA due to a lack of a modified DMR form with these parameters.

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Findings and Conclusions

Based upon a April 9, 1986 inspection of the permittee's self-monitoring; sample collection techniques, flow measurement and analytical procedures, it was determined that Arsynco Inc. is not in compliance with the requirements of their NPDES permit. The following problems were noted:

1. The facility does not keep records of flow meter calibrations. The facility stated that the flow meter was last calibrated 14 months ago but no records were shown.
2. The facility is not collecting petroleum hydrocarbon samples properly. Facility personnel collect samples in one bottle then transfer the contents to the bottle used for the analysis. For petroleum hydrocarbon analysis, only the original sampling bottle should be used.
3. The facility has New York Testing conduct oil and grease analysis in place of the petroleum hydrocarbon analysis required by their permit.
4. The facilities thermometer should be calibrated at least once a year against an NBS traceable thermometer.
5. Although the facility stated that records of the calibrations used for the pH meter exist, they could not be found at the time of this inspection.

The following problems were noted in the laboratory:

- a) New York Testing uses EPA method 410.1 (titrimetric, midlevel) for its COD analysis. This method is only applicable for organic carbon concentrations of 50 mg/l or greater. Arsynco's samples should be analyzed with EPA method 410.2 which is a low level modification of this method for organic carbon concentrations of less than 50 mg/l.
- b) The drying oven used for total suspended solids analysis was not operating within the range of 103°C to 105°C. The oven temperature fluctuated substantially from this range.
- c) Total suspended solids samples are not being refrigerated during and after collection.

d) The oil and grease analysis is not being performed properly for the following reasons: (The deficiencies noted for oil and grease analysis are those parts of the analysis which are identical to Petroleum Hydrocarbons).

- Only a portion of the whole sample is used for the analysis. The entire sample must be used.
- The sample bottle and the graduated cylinder are not extracted three times.
- For oil and grease analysis duplicates must be run as a separate grab sample. New York Testing runs duplicates as a portion of the original sample.

Attachments:

- 1 - Plot Plan of Arsynco, Inc.
- 2 - Water flow diagram supplied by Arsynco, Inc.
- 3 - Water balance supplied by Arsynco, Inc.

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PHASE II DIOXIN SITE INVESTIGATION

FINAL REPORT

ARSYNCO, INC.
CARLSTADT, NEW JERSEY

NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
HAZARDOUS SITE MITIGATION ADMINISTRATION
TRENTON, NEW JERSEY

E.C.JORDAN CO.

DECEMBER 1985

PHASE II DIOXIN SITE INVESTIGATION

FINAL REPORT

FOR

ARSYNCO, INC.
CARLSTADT, NEW JERSEY

Submitted To

New Jersey Department of Environmental Protection
Division of Waste Management
Hazardous Site Mitigation Administration
428 East State Street
Trenton, New Jersey 08625

By

E.C. Jordan Co.
P.O. Box 7050, DTS
Portland, Maine 04112

December 1985

ARSYNCO, INC.
CARLSTADT, NEW JERSEY

1.0 BACKGROUND

1.1 Project Description

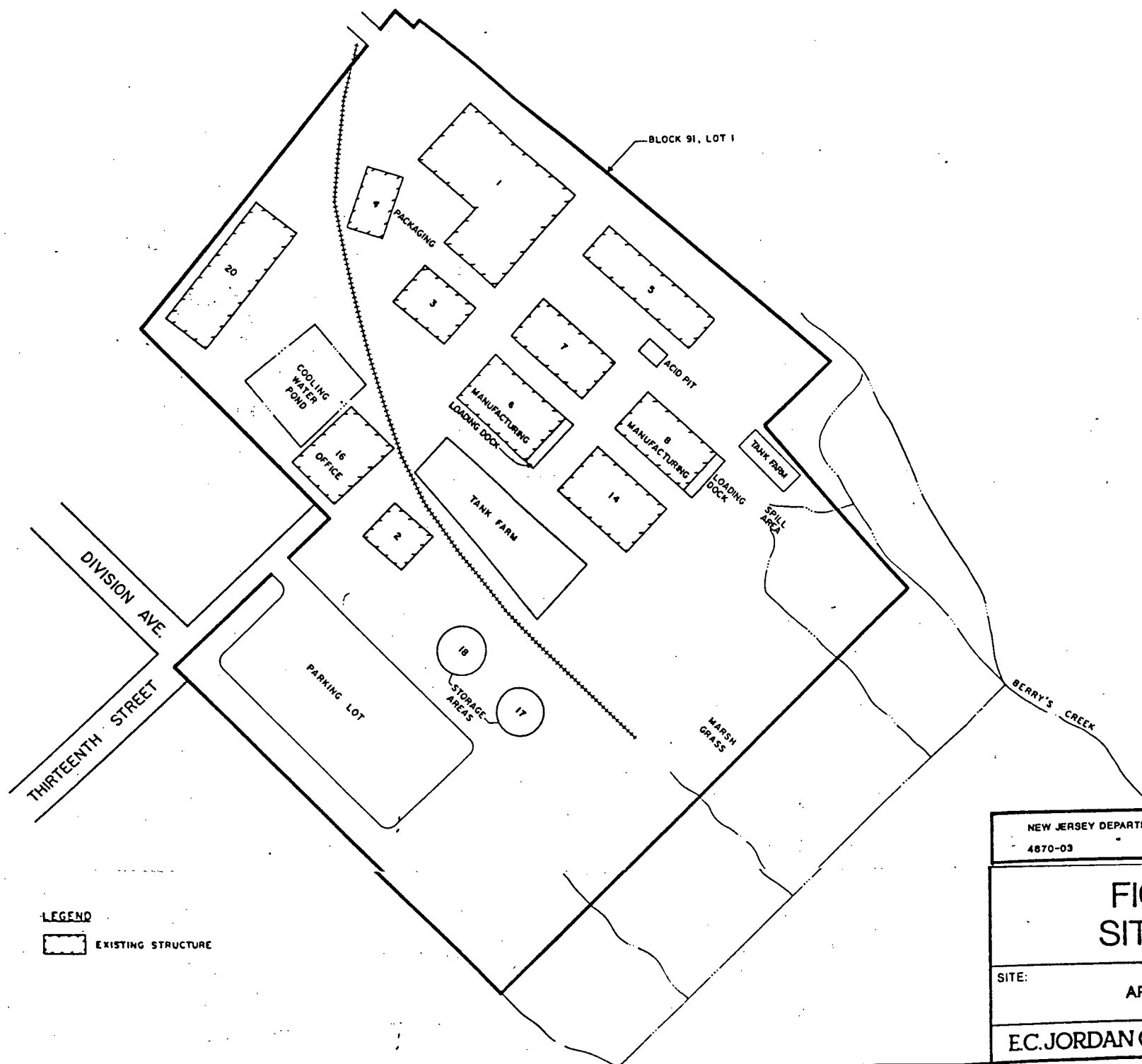
The New Jersey Department of Environmental Protection (NJDEP), in cooperation with the U.S. Environmental Protection Agency (EPA), is responsible for the identification and assessment of potential dioxin contamination in the State of New Jersey. During Phase I of the Dioxin Site Investigation Program, the NJDEP collected and analyzed soil samples from nine sites where compounds known to be associated with dioxin were produced. As part of Phase II of the program, soil and sediment samples from an additional 23 sites selected by the NJDEP were analyzed for dioxin contamination.

This report summarizes the Phase II dioxin investigation of Arsynco, Inc. in Carlstadt, NJ conducted by E.C. Jordan under contract to the NJDEP. The investigation consisted of five major tasks: (1) file review; (2) site reconnaissance; (3) sample collection; (4) sample analysis; and (5) report preparation.

Records on file at the following offices of the NJDEP were examined during the file review:

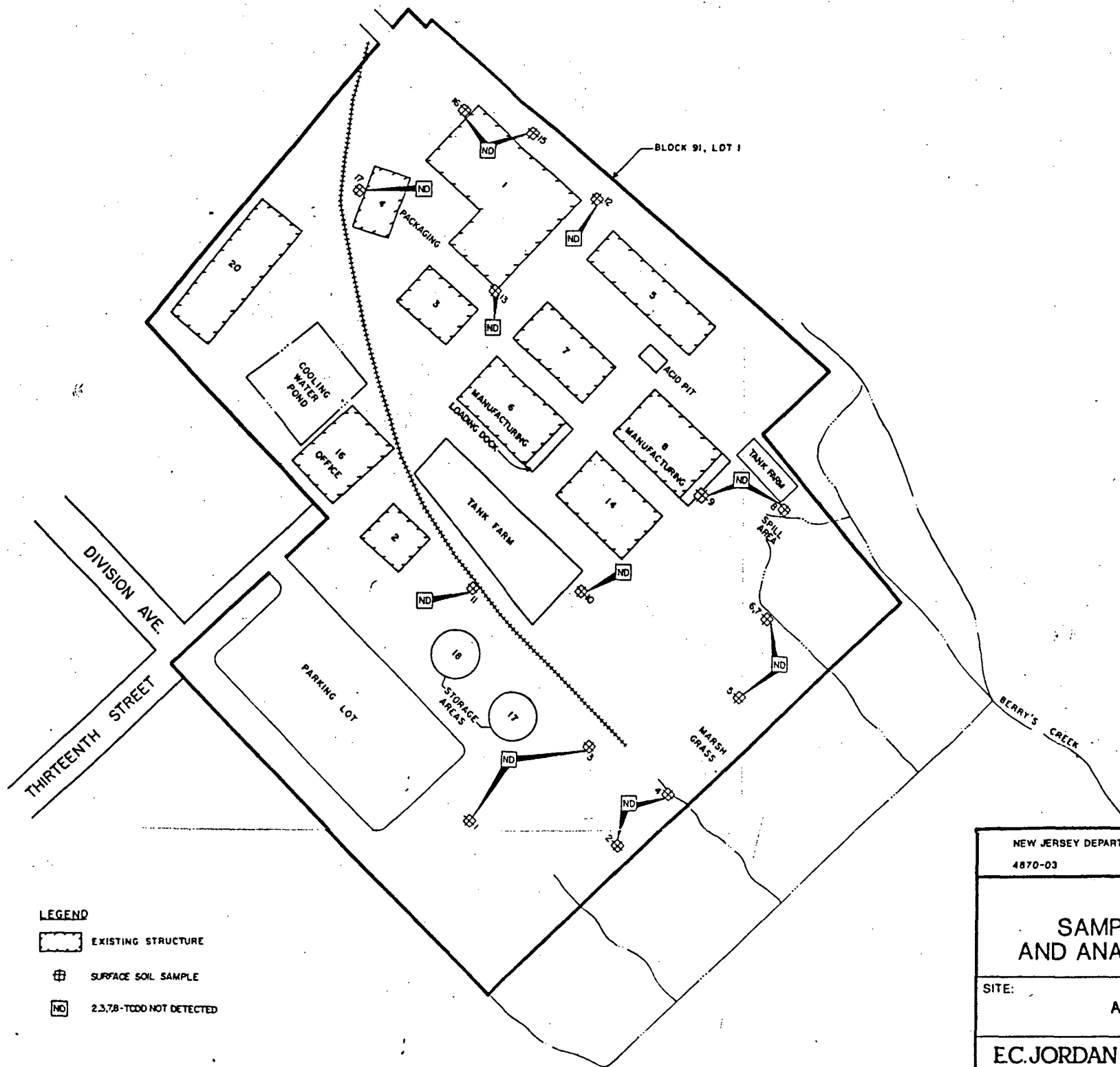
- o Division of Waste Management, Hazardous Site Mitigation Administration, Trenton (HSMA);
- o Division of Waste Management, Bureau of Field Operations, Parsippany-Troy and Yardville (DWM);
- o Office of Science and Research, Industrial Investigation Unit, Trenton (OSR); and
- o Division of Water Resources, Trenton (DWR).

Records on file at EPA's Region II Office in Edison, NJ were also reviewed.



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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
4870-03 JUNE 1985

FIGURE 3 SAMPLE LOCATIONS AND ANALYTICAL RESULTS

SITE:

ARSYNCO, INC.

E.C. JORDAN CO.

0 50 100 FEET

During the site reconnaissance, site personnel were interviewed to confirm file information. Sample locations were selected based on the site use history and observations made during the reconnaissance. The sample location selection process was designed to include those areas with the greatest potential for dioxin contamination. Because of the low mobility of dioxin in soils, most samples were collected within the surficial soil stratum (0 to 6 inches). Samples were delivered to the Environmental Testing and Certification Corporation (ETC) in Edison, NJ for analysis of dioxins, in particular the chlorinated dioxin isomer, 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). Samples from this site were subsequently sent to California Analytical Laboratories, Inc. (Cal-Analytical) in West Sacramento, CA for re-analysis.

1.2 Site Location

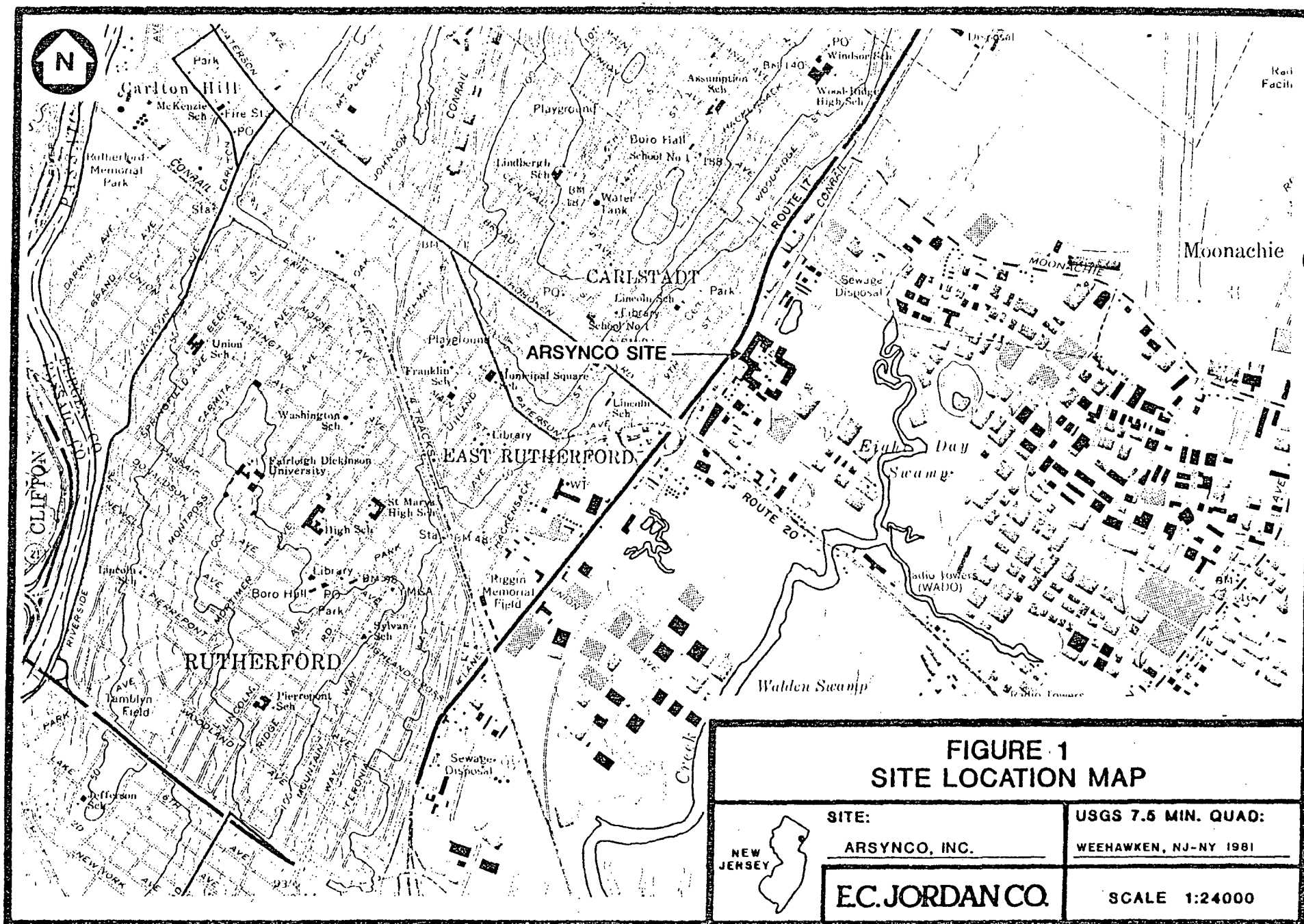
Arsynco, Inc.
Subsidiary of Aceto Chemical Co., Inc.
Foot of 13th Street
Carlstadt, New Jersey 07072

Bergen County
Latitude 40° 50' 07" Longitude 74° 05' 03"

Carlstadt is in northeastern New Jersey, approximately 10 miles northeast of Newark. The site is northeast of intersection of Route 17 and Route 20 (Figure 1).

1.3 Site Topography and Layout

The Arsynco site is predominantly flat with an elevation of between 5 and 10 feet above mean sea level (MSL). Elevations rise sharply to 200 feet above MSL west of Route 17. This higher land is a densely populated, residential/commercial area. The Arsynco plant was constructed on former swamp land



drained by Berry's Creek, a tributary of the Hackensack River. While much of the former swamp has been filled in for industrial development, some open swamp areas still exist approximately one-half mile south of the site (Figure 1).

Figure 2 depicts the layout of the 9.3-acre Arsynco site.

1.4 Environmental Setting

Stormwater runoff from the Arsynco site is channeled directly to Berry's Creek which in turn flows through a tidal wetland to the Hackensack River (2). The property is on a floodplain and minor flooding occurs on average twice a year (8).

There are no monitoring wells at the Arsynco site (8). Consequently, information on the site hydrogeology was not available. There is one supply well on-site which is used as a cooling water source. Non-contact cooling water is discharged to the cement-lined pond depicted in Figure 2 (8).

1.5 Site Use History

According to the Manager of Regulatory Affairs for Arsynco, the history of chemical production at the site dates from circa 1905. Commercial Solvents was one of the first occupants, followed by Fries Brothers in 1932. In the late 1950's, the site was sold to the Inmont Corporation, and in 1969, it was purchased by Arsynco, Inc. Arsynco is owned by the Aceto Chemical Co., Inc., a holding company which is engaged in the import and export of chemicals (8).

Arsynco's primary products are organic chemical intermediates, pharmaceuticals, amines, organic chlorides, and hair dyes (2,8). A 1980 HSMA report states that hazardous substances used in manufacturing processes include

toluene diisocyanate, 2-methylaziradine, methylene chloride, 1,1,1-trichloroethane, xylene, methanol, phenol, naphthol, and pyridine (2). Arsynco also packages and repackages chemicals for Aceto (8).

Reports of site inspections conducted by the NJDEP in 1977 and 1984 document poor housekeeping practices at the Arsynco plant (2,5). Specifically noted were leaking and rusting drums, unlabeled containers, and unsegregated hazardous wastes. During the 1977 inspection, there was evidence of numerous small chemical spills on the premises. One area of repeated spills, drained by two shallow channels which lead directly to Berry's Creek, is shown in Figure 2 (2). In response to notifications of waste management violations by the NJDEP, Arsynco reportedly conducted a site cleanup campaign during the summer of 1984 (5). However, several areas of discolored soils and strong odors (possibly toluene) were noted during the site reconnaissance.

2.0 POTENTIAL DIOXIN CONTAMINATION

2.1 Use, Production, or Disposal of Dioxin-Associated Chemicals

Based on EPA files, OSR identified Arsynco as a former producer of 2,4,5-trichlorophenol (6). EPA has also listed Arsynco and the former owner Inmont Corporation as producers of 3,5-dichlorosalicylic acid (1). Arsynco representatives stated that to their knowledge, neither of these chemicals had ever been produced at the site (6,8). However, the Manager of Regulatory Affairs (W. Bennett) said it is possible that 2,4,5-trichlorophenol may have been repackaged at the site (8). This compound is classified by EPA as a Class I pesticide which means that it is highly likely to be associated with the presence of dibenzo-p-dioxins (1). The compound 3,5-dichlorosalicylic acid is a Class II organic compound as defined by EPA (1).

2.2 Storage and Handling Methods

Based upon observations made during the site reconnaissance, the most likely locations for repackaging operations to have occurred at Arsynco would be Buildings 4 and 8 which are shown in Figure 2. No information was available concerning the storage and handling of 3,5-dichlorosalicylic acid by Inmont Corp.

2.3 Past Sampling Efforts

There were no records in the NJDEP or EPA files which indicated previous soil, sediment, surface water, or groundwater sampling at the Arsynco site for dioxin analysis.

3.0 SITE RECONNAISSANCE AND RATIONALE FOR SAMPLING LOCATIONS

3.1 Summary of Site Reconnaissance

On March 28, 1985, E.C. Jordan Co. personnel (W. Britton and C. Moore) and NJDEP representatives (E. Stevenson and R. Tuccillo) met with the President of the Aceto Chemical Co. (S. Mann) and the Manager of Regulatory Affairs for Arsynco (W. Bennett) at the Arsynco plant in Carlstadt. The meeting consisted of two parts: (a) an interview during which site use history and production practices were discussed; and (b) a tour of the facility under the direction of Mr. Bennett.

Utilizing the observations made during the site visit, in addition to the information gained from the file search, six sample areas have been identified at this site. These areas, shown on Figure 2, are:

- o the open area south of the parking lot;
- o the drainage swales and surrounding areas at the southern end of the site;

- o the open area south and east of Building 8;
- o the open area southeast of the tank farm;
- o the rail spur which traverses the site from north to south;
- o the drainage areas surrounding Building 1.

3.2 Rationale for Sampling Locations

During the site visit there were several truck trailers and tankers parked at the southern end of the parking lot. Behind these vehicles was an area containing numerous barrels. Because of the potential for leaks from barrels or parked tank trucks, the area south of the parking lot is a proposed sampling area. In addition to this area, there are three well-defined swales which drain the southern half of the site. If materials were spilled during the manufacturing process or while moving containers around the site, the materials could be picked up in surface runoff and transported off-site. Samples collected from these swales should be indicative of any dioxin movement in this area. Samples should also be collected from the surface soils between the swales, since these areas are used for materials storage and are potential points of sediment deposition during periods of flooding.

Building 8 is used as a manufacturing or process area. Raw materials are brought in and/or stored in the loading dock area of this building. Spills which occur during unloading, loading, or storage would tend to accumulate in the soils adjacent to the dock. Surface runoff in this area is primarily directed toward the eastern property line where an ill-defined drainage channel carries it off site. Consequently, both the dock and drainage areas provide suitable points for collecting soil samples which would be representative of this portion of the site.

A topographic low area is situated southeast of the tank farm. Not only does this area have a potential for ponding of surface runoff, but the surficial soils are currently highly stained in this location. Therefore, this depression serves as a prime sampling point for inclusion in this dioxin investigation.

The rail spur has been used for bringing raw materials into this site. If leaks or spills happened during the offloading of these materials or while a tank car was standing on site, the soils adjacent to the tracks would probably be the major recipient of these spills and should be sampled. Since the rail spur enters the site in the same location as the old truck entrance, a sample taken in this area should be representative of both rail and truck movement of materials.

A primary area where chlorination would have taken place at this facility is in Building 1. Samples collected from soils surrounding this building would be indicative of potential contamination via the runoff routes of any liquid spills. A sample from the northwestern corner of Building 1, in the vicinity of the packaging/repackaging building, is proposed.

Based on discussions with the NJDEP staff, it was agreed that 15 soil samples (not counting duplicates or field blanks) would be collected at this site. A site sampling plan, which identifies the sample locations, is included as Appendix A of this report. Appendix B contains the site specific health and safety plan.

4.0 SAMPLE COLLECTION AND ANALYSIS

4.1 Summary of Sampling Episode

On May 15, 1985, E.C. Jordan Co. personnel (W. Britton and C. Goodwin) collected 16 surface soil samples (including one duplicate) at the Arsynco site for analysis of 2,3,7,8-TCDD. A representative of the NJDEP (W. Mennel) was present during the sampling. The sampling locations are shown in Figure 3. Samples were split at the request of the site owners. Appendix C contains a copy of the field data sheets. Slides of the sample sites are included in Appendix D.

The samples were collected in accordance with the sampling plan (Appendix A) with the following exceptions. Sample 1-2 was moved to a depressional area between the two drainage swales in the southeastern part of the site. Samples 1-13, 1-15, and 1-16 were also moved slightly to obtain samples in the topographically low areas on the northeast, northwest, and southwest sides of Building 1. Sample 1-17 was relocated to a spot between Building 4 (where packaging occurs) and the railroad spur.

4.2 Summary of Results

Samples from Arsynco were initially analyzed by ETC. However, the analytical results were found to be unacceptable by the NJDEP Quality Assurance Office. All of the samples were then sent to Cal-Analytical for re-analysis. Cal-Analytical uses a comparable method for 2,3,7,8-TCDD analysis known as the EPA Invitation for Bid, Contract Laboratory Program, WA84-A002.

The results of the 2,3,7,8-TCDD analysis by Cal-Analytical for Arsynco are shown in Table 1 and Figure 3. The data were validated by the NJDEP. The isomer 2,3,7,8-TCDD was not detected in any of the samples analyzed and the detection limits were consistently below 0.1 ppb.

TABLE 1

RESULTS OF 2,3,7,8-TCDD ANALYSIS
ARSYNCO, INC.

Sample Collection Date: May 15, 1985
Sample Analysis Date(s): October 14, 1985
Laboratory: California Analytical Laboratories, Inc.
West Sacramento, California

Sample Number	Map Reference	2,3,7,8-TCDD (ppb ¹)		Sample Type
		Measured	DL ²	
1-1	1	ND ³	0.049	Surface soil
1-2	2	ND	0.020	Surface soil
1-3	3	ND	0.038	Surface soil
1-4	4	ND	0.025	Surface soil
1-5	5	ND	0.026	Surface soil
1-6	6	ND	0.021	Surface soil
1-7	7	ND	0.046	Duplicate of Sample 1-6
1-8	8	ND	0.034	Surface soil
1-9	9	ND	0.015	Surface soil
1-10	10	ND	0.046	Surface soil
1-11	11	ND	0.033	Surface soil
1-12	12	ND	0.033	Surface soil
1-13	13	ND	0.012	Surface soil
1-14	None	ND	0.044	Field/equipment blank
1-15	15	ND	0.020	Surface soil
1-16	16	ND	0.033	Surface soil
1-17	17	ND	0.077	Surface soil

¹ ppb - Parts per billion, i.e., µg/kg of soil or sediment on an "as is" basis.

² DL - Method detection limit which is the concentration at which there is a 99 percent confidence level that the compound is present.

³ ND - Not detected.

A duplicate sample was taken at sample location 6. The soil collected at this location was thoroughly mixed and then poured alternately into two sample bottles which were then sealed and submitted to the laboratory as a check on the consistency of the laboratory analysis. The analytical results for Samples 1-6 and 1-7 were consistent. Both had no detectable 2,3,7,8-TCDD, with detection limits of 0.021 ppb and 0.046 ppb, respectively.

A combined field/equipment blank was also submitted to the laboratory for analysis. The blank consisted of analyte-free soil supplied by the NJDEP which was poured through a tulip bulb planter into a foil pan and then into an empty sample bottle at the site. The bottle was then sealed and submitted to the laboratory as a check on possible contamination from the sample, site, sampling equipment, or sample containers. No 2,3,7,8-TCDD was detected in the field/equipment blank (Sample 1-14).

4.3 Assessment of the Need for Further Dioxin Sampling

The dioxin isomer 2,3,7,8-TCDD was not detected in any of the surface soil samples collected at the Arsynco site. These samples were taken from 15 different biased locations on the 9.3 acre site. Based on these results, further sampling for 2,3,7,8-TCDD analysis at the Arsynco site is not recommended at this time.

REFERENCES

1. Esposito, M.P., T.O. Tiernan, and F.E. Dryden, 1980. Dioxins. U.S. EPA 600/2-80-197, Cincinnati, OH.
2. Records on file as of January 31, 1985, NJDEP - Division of Waste Management, Hazardous Site Mitigation Administration, 428 East State Street, Trenton, NJ 08625.
3. Records on file as of January 31, 1985, NJDEP - Division of Waste Management, Bureau of Field Operations, 120 Route 156, Yardville, NJ 08620.
4. Records on file as of January 31, 1985, NJDEP - Division of Waste Management, Bureau of Field Operations, 1259 Route 46E, Parsippany-Troy Hills, NJ.
5. Records on file as of January 31, 1985, NJDEP - Division of Water Resources, 1174 Prospect Street, Trenton, NJ.
6. Records on file as of January 31, 1985, NJDEP - Office of Science and Research, Industrial Investigation Unit, 436 East State Street, Trenton, NJ.
7. Records on file as of January 31, 1985, U.S. EPA - Region II Office, Woodbridge Avenue, Edison, NJ.
8. Interview on March 28, 1985 with Seymour Mann, President of Aceto Chemical Co. and Wesley Bennett, Manager of Regulatory Affairs for Arsynco, Inc. in Carlstadt, N.J.



File
Leaded III
01

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029

TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

October 17, 1985

Mr. James Dillon, General Manager
Arsynco Chemical Company
Foot of 13th Street
Carlstadt, NJ 07072

Dear Mr. Dillon:

On September 24, 1985, an inspection of the Arsynco Chemical Company (Arsynco) facility in Carlstadt was conducted by representatives of the Division of Water Resources (DWR) in response to a report of a spill by a representative of Arsynco.

During the inspection the following observations were made:

1. A 5000 gallon tank containing 20% sodium hydroxide developed a leak at a valve and approximately 3800 gallons were released into the containment area. The containment area failed at several points and seepage was observed outside the dike walls. Arsynco employees neutralized the sodium hydroxide using sulfuric acid and acetic acid and then washed the residue into a ditch which drains into Berry's Creek.
2. A precipitate from the reaction of the sodium hydroxide and the acids was observed to have settled in the drainage ditch.

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3. Several pools of discolored liquids were observed at various locations in the rear yard area of the facility. These pools were results of past spills.
4. The ditch drains the rear yard of stormwater runoff as well as all spills.
5. A second ditch located in the rear yard of Arsynco was observed receiving discolored seepage from the soil. This ditch also drains into Berry's Creek.

Based from these observations, DWR has determined that a potential exists for surface water and ground water contamination from hazardous substances. Unpermitted discharges to the surface water and ground water are in violation of N.J.S.A. 58:10A-1 et seq., the New Jersey Water Pollution Control Act, and N.J.S.A. 58:10-23.11c et seq., the Spill Compensation and Control Act.

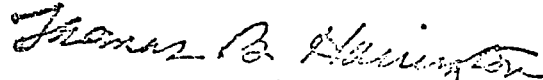
Arsynco is therefore Directed to:

1. Contain the discharge of the reaction precipitate from entering Berry's Creek.
2. Submit a plan within fourteen (14) days of the receipt of this DIRECTIVE outlining the removal of the reaction precipitate from the ditch, and also a plan for the containment of any future spills in the rear yard to prevent them from entering Berry's Creek a tributary of the Hackensack River.
3. Allow access for DWR representatives to conduct soil and water sampling from the rear yard in order to evaluate the extent of potential ground water contamination. Under N.J.A.C. 7:14A-6.15 et seq., Arsynco may be required to obtain a NJPDES permit to discharge to the ground water based on, "activities or past practices which have resulted in an actual or potential discharge of hazardous waste, hazardous waste constituents, or other ground water pollutants onto the land."

Failure to comply with this DIRECTIVE may result in further enforcement action by this office, including the imposition of penalties, pursuant to N.J.S.A. 58:10A-10. Compliance, however, shall not be construed to relieve Arsynco from appropriate penalties for the cited statutory violations.

If you have any questions concerning this DIRECTIVE, please contact Mr. Anthony DeCandia of this office at (201) 646-1200.

Very truly yours,



Thomas B. Harrington
Supervisor, Compliance
Monitoring Unit
Metro Bureau of
Regional Enforcement

E126:G25

cc: Albert Greco

bcc: Marianne Montgomery

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF AUTHORIZATION

PERMIT NO.
NJ0030970ISSUANCE DATE
April 15, 1985EFFECTIVE DATE
June 1, 1985EXPIRATION DATE
March 14, 1989ISSUED TO
Arsynco, Inc.
P.O. Box 8
Carlstadt, NJ 07072FOR ACTIVITY/FACILITY AT
Foot of 13th Street
Carlstadt, NJOWNER
Aceto Chemical Co.
126-02 Northern Blvd.
Flushing, NY 11308ISSUING DIVISION
Water ResourcesTYPE OF PERMIT
NJPDES/SIU ModificationSTATUTE(S)
N.J.S.A.
58:10A-1 et seq.APPLICATION NO.
N/A

A PERMIT TO

Discharge industrial process wastewater into the Rutherford, East Rutherford, Carlstadt Joint Meeting Sewage Treatment Plant, in accordance with effluent conditions, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

By the Authority of:
John W. Gaston Jr., P.E.
Director
Division of Water Resources

DEP AUTHORIZATIONDEP-008
2/84

THIS NOTICE MUST BE CONSPICUOUSLY DISPLAYED AT THE ACTIVITY/FACILITY SITE.

ATTACHMENT P



PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.


Permit No. NJ0030970	Issuance Date April 15, 1985	Effective Date June 1, 1985	Expiration Date March 14, 1989
Name and Address of Applicant Arsynco, Inc. P.O. Box 8 Carlstadt, NJ 07072	Location of Activity/Facility Foot of 13th Street Carlstadt, NJ	Name and Address of Owner Aceto Chemical Co. 126-02 Northern Boulevard Flushing, NY 11308	
Issuing Division Water Resources	Type of Permit NJPDES/SIU Modification	Statute(s) N.J.S.A. 58:10A-1 et seq.	Application No. N/A

This permit grants permission to:

Discharge industrial process wastewater into the Rutherford, East Rutherford, Carlstadt Joint Meeting Sewage Treatment Plant, in accordance with effluent conditions, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

This permit does not include any NJPDES discharge to ground water (DGW) permit required in accordance with N.J.A.C. 7:14-1 et seq. Also, this permit does not constitute a waiver from obtaining a NJPDES-DGW permit as per Section 10.7 of the NJPDES Regulations. The Department reserves the right to modify this DSW permit at any time to include a DGW permit section.

Approved by the Department of Environmental Protection
By the Authority of:
John W. Gaston Jr., P.E.
Director
Division of Water Resources


Arnold Schiffman, Administrator
Water Quality Management

4/15/85
DATE

* The word permit means "approval, certification, registration, etc."

(GENERAL CONDITIONS ARE ON THE REVERSE SIDE.)



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT

120 Rt. 156, Yardville, N.J. 08620

DR. MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

JUN 15 1984

(IN THE MATTER OF)
(ARSYNCO INCORPORATED)

ADMINISTRATIVE
ORDER

The following FINDINGS are made and ORDER is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (Department) and duly delegated to the Assistant Director for Enforcement and Field Operations, Division of Waste Management, under the Solid Waste Management Act, N.J.S.A. 13:1E et seq.

FINDINGS

- 1) The New Jersey Department of Environmental Protection (hereinafter "the Department") has determined that Arsynco Incorporated (hereinafter "Arsynco") is the operator of a hazardous waste facility (EPA ID #NJD044688935) located at the foot of 13th Street, Carlstadt Borough, Bergen County, New Jersey.
- 2) During inspections of the above stated facility by a Departmental representative on April 12, 1984 and April 19, 1984, the following violations were observed:
 - a. Arsynco failed to notify the Department when Arsynco failed to receive a "Part B" for manifest #NJ0062307 within the allotted 35 day period. This is a violation of N.J.A.C. 7:26-7.4(h)1.
 - b. Arsynco failed to file an Exception Report for the above stated missing "Part B" within the required 45 day period. This is a violation of N.J.A.C. 7:26-7.4(h)2.
 - c. Arsynco handled hazardous waste in such a manner that caused an unauthorized discharge of hazardous waste. This being a violation of N.J.A.C. 7:26-9.2(a)2.
 - d. Arsynco failed to label hazardous waste containers with the date for which accumulation began. This is a violation of N.J.A.C. 7:26-9.3(a)3.

ATTACHMENT R

- e. Arsynco failed to obtain a waste analysis plan for waste received from an outside source, specifically Roehr Chemicals, Flushing, New York. This is a violation of N.J.A.C. 7:26-9.4(b)1.
- f. Arsynco failed to have a waste analysis plan as outlined in N.J.A.C. 7:26-9.4(b)2 and therefore is in violation of same.
- g. Arsynco stored hazardous waste in leaking containers and failed to transfer said hazardous waste to a container in good condition. This is a violation of N.J.A.C. 7:26-9.4(d)2.
- h. Arsynco failed to securely close hazardous waste containers. This being a violation of N.J.A.C. 7:26-9.4(d)4i.
- i. Arsynco failed to segregate hazardous waste by waste types. This being a violation of N.J.A.C. 7:26-9.4(d)4iv.
- j. Arsynco failed to label hazardous waste containers and therefore is in violation of N.J.A.C. 7:26-9.4(d)4v.
- k. Arsynco failed to adequately inspect the hazardous waste container storage area and therefore is in violation of N.J.A.C. 7:26-9.4(d)5.
- l. Arsynco had inadequate site inspection and no written schedule, and therefore is in violation of N.J.A.C. 7:26-9.4(f)1 and N.J.A.C. 7:26-9.4(f)3 respectively.
- m. Arsynco failed to have personnel training as stipulated in N.J.A.C. 7:26-9.4(g) and therefore is in violation of same.
- n. Arsynco failed to have adequate site security as needed for a hazardous waste storage area, and therefore is in violation of N.J.A.C. 7:26-9.4(h).
- o. Arsynco failed to provide adequate aisle space to allow for movement of personnel and equipment in an emergency. This is a violation of N.J.A.C. 7:26-9.6(e).
- p. Arsynco failed to make arrangements with local authorities as stipulated in N.J.A.C. 7:26-9.6(f) and therefore is in violation of same.
- q. Arsynco failed to develop a contingency plan and emergency procedures and therefore is in violation of N.J.A.C. 7:26-9.7 et seq.

- r. Arsynco failed to have a closure plan as stipulated in N.J.A.C. 7:26-9.8(e) and therefore is in violation of same.
 - s. Arsynco failed to have a containment system as stipulated in N.J.A.C. 7:26-10.4(b) and therefore is in violation of same.
 - t. Arsynco failed to have tank maintenance as stated in N.J.A.C. 7:26-10.5(e)4 and therefore is in violation of same.
 - u. Arsynco failed to have a tank inspection program as stipulated in N.J.A.C. 7:26-11.2(c) and therefore is in violation of same.
- 3) The New Jersey Administrative Code, specifically N.J.A.C. 7:26-7.4(h)1, 7:26-7.4(h)2, 7:26-9.2(a)2, 7:26-9.3(a)3, 7:26-9.4(b)1, 7:26-9.4(b)2, 7:26-9.4(d)2, 7:26-9.4(d)4i, 7:26-9.4(d)4iv, 7:26-9.4(d)4v, 7:26-9.4(d)5, 7:26-9.4(f)1, 7:26-9.4(f)3, 7:26-9.4(g), 7:26-9.4(h), 7:26-9.6(e), 7:26-9.6(f), 7:26-9.7 et seq., 7:26-9.8(e), 7:26-10.4(b), 7:26-10.5(e)4, and 7:26-11.2(c) state:

N.J.A.C. 7:26-7.4(h) - Exception reporting requirements are as follows:

1. A generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial hauler must contact the hauler and/or the owner or operator of the designated facility to determine the status of the hazardous waste and the Department at (609) 292-9877 to inform the Department of the situation.
2. A generator must submit an Exception Report to the Department if the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial hauler. The Exception Report must include:
 - i. a legible copy of the manifest for which the generator does not have confirmation of delivery; and
 - ii. a letter signed by the generator or the generator's authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

N.J.A.C. 7:26-9.2(a) - No person shall cause, suffer, allow or permit the acceptance, transfer, storage, processing, treatment, recovery, disposal or other handling of hazardous waste.

2. In a manner which causes or may cause an unauthorized discharge of pollutants onto or into the land, surface water, ground water or air of this State.

N.J.A.C. 7:26-9.3(a) - A generator may accumulate hazardous waste on-site without a permit for 90 days or less provided that:

3. The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container.

N.J.A.C. 7:26-9.4(b)1 - Before an owner or operator treats, stores, or dispose of any hazardous waste, the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste.

- i. At a minimum, this analysis shall contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of this subchapter.
- ii. The analysis may include data developed under N.J.A.C. 7:26-8.1 et seq. and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.
- iii. The analysis shall be repeated as necessary to insure that it is accurate and up-to-date. At a minimum, the analysis must be repeated when the owner or operator is notified, or knows or should know, that the process or operation generating the hazardous waste has changed.
- iv. For off site facilities, the analysis shall be repeated when the results of the inspection required in N.J.A.C. 7:26-9.4(b)1.v indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.
- v. The owner or operator of an off site facility shall inspect each hazardous waste shipment received at the facility and analyze, unless not required by the approved waste analysis plan, to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

N.J.A.C. 7:26-9.4(b)2 - The owner or operator must develop and follow a written waste analysis plan which describes the procedures which the owner or operator will perform to comply with N.J.A.C. 7:26-9.4(b)1. The owner or operator must keep this plan at the facility. At a minimum, the plan must specify:

- i. The parameters for which each hazardous waste stream will be analyzed including constituents listed in

N.J.A.C. 7:26-8.16, and the rationale for the selection of these parameters;

- ii. The test methods which will be used to test for these parameters;
- iii. The sampling method which will be used to obtain a representative sample of the waste to be analyzed;
- iv. The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date;
- v. For off-site facilities, the waste analysis that hazardous waste generators have agreed to supply; and
- vi. Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in N.J.A.C. 7:26-10.1 et seq. and N.J.A.C. 7:26-11.1 et seq.
- vii. Procedures which will be used to identify changes in waste stream characteristics.

N.J.A.C. 7:26-9.4(d)2 - If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator shall transfer the hazardous waste from the container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this section.

N.J.A.C. 7:26-9.4(d)4 - Management of containers shall conform to the following requirements:

- i. Except during filling or emptying, the container shall be securely closed so that there is no escape of hazardous waste or its vapors;
- iv. Containerized hazardous waste shall be segregated in storage by waste type;
- v. Every container shall be arranged so that its identification label is visible.

N.J.A.C. 7:26-9.4(d)5 - The owner or operator shall inspect areas where containers are stored, at least daily, looking for leaks and for deterioration caused by corrosion or other factors.

N.J.A.C. 7:26-9.4(f)1 - The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing, or may lead to:

- i. Discharge of hazardous waste constituents to the environment; or
- ii. A threat to human health.

N.J.A.C. 7:26-9.4(f)3 - The owner or operator shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are utilized for the prevention, detection, or response to environmental or human health.

- i. The owner or operator shall submit the written inspection schedule as part of the permit application for the facility or sooner if so required by the Department.
- ii. The Department may require modifications to the plan is inadequate to accomplish the purpose of this section.
- iii. The schedule shall be kept at the facility.
- iv. The schedule shall identify the types of problems which are to be looked for during the inspection.
- v. The frequency of inspection may vary for the items on the schedule, however, it shall be based on the rate of possible deterioration of the equipment and the probability of an environmental, or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use.

N.J.A.C. 7:26-9.4(g) - Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this subchapter.

1. The owner or operator shall ensure that this program includes all the elements described in the document required under N.J.A.C. 7:26-9.4(g)6iii.
2. This program shall be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.
3. At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures,

cy equipment, and emergency systems, including, where
ble:

Personal safety equipment;

Procedures for using, inspecting, repairing, and
replacing facility emergency and monitoring equipment;

Key parameters for automatic waste feed cut-off
systems;

Communications or alarm systems;

Response to fires or explosions;

Response to ground water contamination incidents; and

Shutdown of operations.

ility personnel shall successfully complete the program
d in paragraphs 9.4(g)1-3 within six months after the
ve date of this subchapter or six months after the date of
employment or assignment to a facility, or to a new posi-
a facility, whichever is later. Employees hired after
ective date of this subchapter must not work in unsuper-
ositions until they have completed the training require-
f paragraphs 9.4(g)1-3.

ility personnel shall take part in an annual review of the
training required in paragraphs 9.4(g)1-3.

owner or operator shall maintain the following documents
ords at the facility:

The job title for each position at the facility
related to hazardous waste management, and the name
of the employee filling each job;

A written job description for each position listed
under subparagraph 9.4(g)61. This shall be current
at all times. This description may be consistent in
its degree of specificity with descriptions for
other similar positions in the same company location
or bargaining unit, but shall include the requisite
skill, education, or other qualifications, and duties
of employees assigned to each position.

A written description of the type and amount of both
introductory and continuing training that will be
given to each person filling a position listed
under subparagraph 9.4(g)61.

Records that document that the training or job
experience required under paragraphs 9.4(a)1

through 5 has been given to, and completed by,
facility personnel.

7. Training records on current personnel shall be kept until closure of the facility; training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

8. Semi-annual drills involving all employees and appropriate local authorities shall be conducted to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to N.J.A.C. 7:26-9.7.

- i. An owner or operator may petition the Department for an exemption from the semi-annual drill requirement.
- ii. An owner or operator may petition the Department for an exemption from the involvement of some or all local officials in the semi-annual drills provided the specific local officials to be excluded have provided the Department with written approval of the exemption.

N.J.A.C. 7:26-9.4(h) - The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility.

1. A facility shall have:

- i. A 24 hour surveillance system which continuously monitors and controls entry onto the active portion of the facility; or
 - ii. An artificial or natural barrier, which completely surrounds the active portion of the facility; and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility.
2. The requirements of paragraph 9.4(h)1 are satisfied if the hazardous waste storage, treatment or disposal site is located in a facility which itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of subparagraph 9.4(h)1i or 9.4(h)1ii.
3. The owner or operator shall post a sign with the legend, "Danger - Unauthorized Personnel Keep Out", at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English and in any other language prevalent in the area surrounding the facility and must

be legible from a distance of at least 25 feet (7.6 meters). Existing signs with a legend other than "Danger - Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

N.J.A.C. 7:26-9.6(e) - The owner or operator shall maintain aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

N.J.A.C. 7:26-9.6(f) - The owner or operator shall make the following arrangements, in addition to the requirements at 9.4(g)8, as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations:

1. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;
2. Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;
3. Agreements with emergency response contractors, and equipment suppliers;
4. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility; and
5. Arrangements to have the local fire department inspect the facility on a regular basis with at least two (2) inspections annually.

7:26-9.7 - Contingency Plan and Emergency Procedures

(a) Each owner or operator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(c) The contingency plan shall describe the actions facility personnel shall take to comply with paragraphs 9.7(a), (b) and (e) and in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(d) If the owner or operator has already prepared a Spill Prevention, Control, or Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq., the owner or operator needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section.

(e) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to N.J.A.C. 7:26-9.6(f).

(f) The plan shall list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and this list must be kept up-to-date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(g) The plan shall include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list shall be kept up-to-date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(h) The plan shall include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(i) A copy of the contingency plan and all revisions to the plan must be:

1. Maintained at the facility; and
2. Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(j) The contingency plan shall be revised, and immediately amended, if necessary, whenever:

1. Applicable regulations are revised;
2. The plan fails in an emergency;
3. The facility changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
4. The list of emergency coordinators changes; or
5. The list of emergency equipment changes.

(k) At all times, there shall be at least one employee either on the facility premises or on call with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, and location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

(l) Emergency procedures are as follows:

1. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or a designee when the emergency coordinator is on call) shall immediately:

- i. Identify the character, exact source, amount, and areal extent of any discharged materials;
 - ii. Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - iii. Notify appropriate State or local agencies with designated response roles if there help is needed.
2. Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the discharge, fire, or explosion. This assessment shall consider both direct and indirect effects of the discharge, fire, or explosion.
3. If the emergency coordinator determines that the facility has had a discharge, fire, or explosion which could threaten human health, or the environment, outside the facility, the emergency coordinator shall:

- i. Immediately notify appropriate local authorities if an assessment indicates that evacuation of local areas may be advisable. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and
 - ii. Immediately notify either the Department at (609) 292-5560 during business hours or (609) 292-7172 at all other times (if a call to the first number is not answered, the second number shall be called); and
 - iii. When notifying the Department pursuant to subsection 9.7(e)3ii, report the type of substance and the estimated quantity discharged, if known; the location of the discharge; actions the person reporting the discharge proposes to take to contain, clean up and remove the substance if any and any other information concerning the discharge which the Department may request at the time of notification.
4. During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and discharges do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.
5. If the facility stops operations in response to a fire, explosion, or discharge, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.
6. Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a discharge, fire, or explosion at the facility.
7. The emergency coordinator shall insure that, in the affected area(s) of the facility:
 - i. No waste that may be incompatible with the discharged material is treated, stored, or disposed of until cleanup procedures are completed; and
 - ii. All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.
8. The owner or operator shall notify the Department, and appropriate local authorities, that the facility is in compliance with subparagraph 9.7(1)7 before operations are resumed in the affected area(s) of the facility.

9. The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner or operator shall submit a written report on the incident to the Department. The report shall include, but not be limited to:

- i. Name, address, and telephone number of the owner or operator;
- ii. Name, address, and telephone number of the facility;
- iii. Date, time, and type of incident;
- iv. Name and quantity of material(s) involved;
- v. The extent of injuries, if any;
- vi. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
- vii. Assessment of the scope and magnitude of the problem;
- viii. Description of the immediate actions that have been taken and the estimated quantity and disposition of recovered material that resulted from the incident; and
- ix. Provide implementation schedule for undertaking suggested measures to eliminate the problem.

N.J.A.C. 7:26-9.8(e) - The closure plan shall identify the steps necessary to completely or partially close the facility at any point during its intended operating life. The closure plan shall include at least:

1. A description of:
 - i. How and when the facility will be partially closed, if applicable, and ultimately closed;
 - ii. The maximum extend of the operation which will be unclosed during the life of the facility; and
 - iii. How the requirements of paragraph 9.8(b) and the applicable closure requirements this section, N.J.A.C. 7:26-10.1 et seq., of N.J.A.C. 7:26-11.1 et seq. (for existing facilities prior to final disposition of permit application) will be met;
2. An estimate of the maximum inventory of wastes in storage or in treatment at any given time during the life of the facility;
3. A description of the steps needed to decontaminate facility equipment during closure; and

4. A schedule for final closure which shall include, as a minimum, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure. (For example, the expected date for completing treatment or disposal of waste inventory shall be included, as well as the planned date for storage facilities and treatment processes.)

N.J.A.C. 7:26-10.4(b) - Rules on containment in container storage areas include the following:

1. Container storage areas must have a containment system that is capable of collecting and holding spills, leaks, and precipitation. The containment system shall:

- i. Have a base underlying the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material is detected and removed. The base shall have a permeability rating no greater than 10^{-7} centimeters per second (cm/sec), in addition to adequate structural integrity to withstand the maximum anticipated stress applied to the base due to activities or structures placed in the containment area. The thickness of the base shall be specified in the permit;
- ii. Consist of material compatible with the wastes being stored;
- iii. Be sloped, or the containment system must be otherwise designed and operated to efficiently drain and remove liquids resulting from leaks, spills or precipitation. Containers shall be protected from contact with accumulated liquids; and
- iv. Have sufficient capacity to contain 10 percent of the volume of all of the containers; or the volume of the largest container whichever is greater; additional capacity shall be provided to compensate for any anticipated normal accumulation of rain water;

2. Run-on into the containment system shall be prevented, unless the Department waives this requirement in the permit after determining that the collection system has sufficient excess capacity in addition to that required in N.J.A.C. 7:26-10.4(b)1.iv to accommodate any run-on which might enter the system;

3. Accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent blockage or overflow of the collection system; and

4. Spilled or leaked waste shall be removed from the sump or collection area daily.

- i. If the collected material is a hazardous waste under N.J.A.C. 7:26-8.1 it shall be managed as a hazardous waste in accordance with all applicable requirements of Title 7, Chapter 26 of the New Jersey Administrative Code (Rules of the Bureau of Solid Waste Management).
- ii. If the collected material is discharged through a point source to water of the State, it is subject to the requirements of NJPDES in N.J.A.C. 7:26-7:14A-1.1 et seq. (Regulations Concerning the New Jersey Pollutant Discharge Elimination System).

N.J.A.C. 7:26-10.5(c)4 - As required in N.J.A.C. 7:26-9.4(f) the owner or operator shall remedy any leak, crack, or wall thinning in violation of N.J.A.C. 7:26-10.5(h) or equipment or process malfunction in violation of N.J.A.C. 7:26-10.5(c) which is discovered during inspection.

N.J.A.C. 7:26-11.2(c) - The owner or operator of a tank shall inspect, where present:

1. Discharge control equipment, at least once each operating day, to ensure that it is in good working order;
2. Data gathered from monitoring equipment, at least once each operating day, to ensure that the tank is being operated according to its design;
3. The level of waste in the tank, at least once each operating day, to ensure compliance with paragraph 11.2(a)3;
4. The construction materials of the tank, at least weekly, to detect corrosion or leaking of fixtures or seams; and
5. The construction materials of, and the area immediately surrounding, discharge confinement structures, at least weekly, to detect erosion or obvious signs of leakage.

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED that Arsynco Incorporated, its principals, agents, employees, successors, assigns, tenants, and any receiver or trustee in bankruptcy, (should such an entity be appointed to take control of the facility which is the subject of this Order) shall:

- 1) Within 15 days of the receipt of this Order submit to the Department the Exception Report for manifest #NJ0062307 as outlined in N.J.A.C. 7:26-7.4(h)2 and immediately cease violations of N.J.A.C. 7:26-7.4(h)1.

- 2) Immediately cease violations of N.J.A.C. 7:26-9.2(a)2 by properly handling all hazardous wastes in such a way as to eliminate any unauthorized discharge of hazardous wastes.
- 3) Immediately label all hazardous waste containers with the date for which accumulation began for each container.
- 4) Immediately cease violations of N.J.A.C. 7:26-9.4(b)1 and obtaining a waste analysis plan for all waste received from outside sources.
- 5) Within 15 days of receipt of this order develop and implement an adequate waste analysis plan as stated in N.J.A.C. 7:26-9.4(b)2. Within this 15 day time period, this plan is to be submitted to the Department.
- 6) Immediately transfer all leaking hazardous waste containers to containers in good condition, as stated in N.J.A.C. 7:26-9.4(d)2.
- 7) Immediately securely close all hazardous waste containers as stated in N.J.A.C. 7:26-9.4(d)4i.
- 8) Immediately segregate hazardous waste by waste types, as stated in N.J.A.C. 7:26-9.4(d)4iv.
- 9) Immediately label hazardous waste containers, as stated in N.J.A.C. 7:26-9.4(d)4v.
- 10) Immediately develop and utilize a written inspection schedule as stated in 9.4(f)3 so as to adequately inspect the facility (N.J.A.C. 7:26-9.4(f)1) and the hazardous waste storage area (N.J.A.C. 7:26-9.4(d)5). This written inspection schedule is to be submitted to the Department within 15 days of the receipt of this Order.
- 11) Within 15 days of receipt of this Order develop and implement an adequate personnel training program as stated in N.J.A.C. 7:26-9.4(g). This training program is to be submitted to the Department within this 15 day period.
- 12) Immediately arrange for and implement adequate site security as stated in N.J.A.C. 7:26-9.4(h). Measures used to provide adequate site security are to be submitted to the Department within 15 days of receipt of this Order.
- 13) Immediately provide adequate aisle space as stated in N.J.A.C. 7:26-9.6(e).
- 14) Within 15 days of receipt of this Order make proper arrangements with local authorities as stipulated in N.J.A.C. 7:26-9.6(f) and submit to the Department in writing within this 15 day period those arrangements which have been arranged.


- 15) Within 15 days of receipt of this Order develop and implement a contingency plan and emergency procedures as stated in N.J.A.C. 7:26-9.7 et seq. This plan is to be submitted to the Department within the 15 day period.
- 16) Within 15 days of receipt of this Order develop an adequate closure plan as stated in N.J.A.C. 7:26-9.8(c), and submit this plan to the Department within the 15 day period.
- 17) Within 30 days of receipt of this Order develop a proper containment system as stated in N.J.A.C. 7:26-10.4(b). Prior to the installation of this containment system the engineering designs are to be submitted to the Department for approval. The Department contact in this instance is:

Frank Coolick
Hazardous Waste Engineering
Division of Waste Management
32 East Hanover Street
Trenton, NJ 08625
(609) 292-9880

- 18) Immediately develop and implement a proper tank maintenance program as stated in N.J.A.C. 7:26-10.5 and submit this program to the Department within 15 days of receipt of this Order.
- 19) Within 15 days of receipt of this Order develop and implement a proper tank inspection program as stated in N.J.A.C. 7:26-11.2(c). Submit this program to the Department within the 15 day period.
- 20) For those paragraphs which do not require submittal to the Department, copies of prepared plans or programs, Arsynco will submit to the Department for those paragraphs, specifically paragraphs 2, 3, 4, 6, 7, 8, 9, and 13 of the Order section, a statement of compliance for those actions cited in said paragraphs.
- 21) All documentation that is to be submitted to the Department is to be sent to:

William Nehls
Bureau of Compliance and Enforcement
Division of Waste Management
120 Route 156
Yardville, NJ 08620

BE ON NOTICE that the maximum civil penalty for violations of the Solid Waste Management Act on an ORDER issued pursuant thereto is \$25,000 per day.

for 
Joseph A. Rogalski
Assistant Director



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT

120 Rt. 156, Yardville, N.J. 08620

DR. MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

OCT 10 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

NOTICE OF VIOLATION
AND OFFER OF SETTLEMENT

DWM Case #84-04-12-09N

Arsynco Incorporated
c/o Seymour Mann, President
P.O. Box 8
Foot of 13th Street
Carlstadt, NJ

Dear Mr. Mann:

On or about April 12, 1984, hazardous substances (including but not limited to xylene and toluene) were discharged at Arsynco Incorporated, Block 91, Lot 1, Foot of 13th Street, County of Bergen, onto the ground from which it might flow or drain into the waters of the State of New Jersey.

The incident summarized above was investigated by members of the Division of Waste Management, who determined that the following provisions of the Spill Compensation and Control Act and regulations promulgated thereunder were violated:

N.J.S.A. 58:10-23.11c Discharging Hazardous Substances

N.J.S.A. 58:10-23.11e Failure to Immediately Notify the
Department of the Discharge
[See N.J.A.C. 7:1E-2.1(a)]

The above cited violations carry maximum statutory civil penalties of \$25,000 per day for each violation.

ATTACHMENT S

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corporation
In accordance with the recommendations of the Department of Environmental Protection, and pursuant to the authority vested in me as Administrator of the New Jersey Spill Compensation and Control Fund by N.J.S.A. 58:10-23.11c, I am amenable to compromise and settle these claims for penalties for the sum of \$2,375.00.

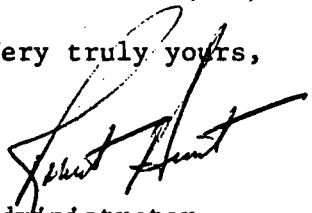
Should you decide to settle this matter, payment must be made within fifteen (15) days of your receipt of this letter. Payment must be sent to the Administrator, New Jersey Spill Compensation Fund, Department of Treasury, One West State Street, CN 620, Trenton, New Jersey 08625. Only checks or money orders drawn to the order of "New Jersey Spill Compensation and Control Fund" will be accepted. Your cancelled check or money order will serve as your receipt.

Should you decide not to accept this settlement offer or fail to forward payment within fifteen (15) days of receipt of this letter, this offer is rescinded, and this matter will be referred to the Office of the Attorney General with instructions to initiate a legal action for the maximum allowable penalty.

Acceptance of this settlement offer will satisfy your liability for civil penalties in connection with the above cited violations but will not relieve you of any other responsibility or obligation under the law, including the responsibility to pay for any damages which may have been caused by the discharge.

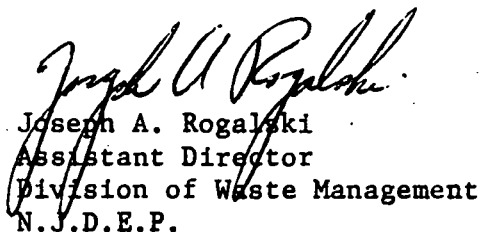
If you wish to make any inquiries or discuss this settlement offer, you may contact Rai Belonzi, Bureau of Compliance and Enforcement, Division of Waste Management, at 120 Route 156, Yardville, New Jersey 08620 or at (609) 292-5560.

Very truly yours,



Administrator,
New Jersey Spill Compensation and Control Fund

Recommendation Approved By:



Joseph A. Rogalski
Assistant Director
Division of Waste Management
N.J.D.E.P.

HW 66310



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT

120 Rt. 156, Yardville, N.J. 08620

DR. MARWAN M. SADAT, P.E.
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

JUN 15 1984

Seymour Mann
Arsynco Incorporated
P.O. Box 8
Foot of 13th Street
Carlstadt, NJ 07072

RE: PENALTY SETTLEMENT OFFER

Dear Mr. Mann:

Attached is an Administrative Order concerning a violation of the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and regulations promulgated thereunder, specifically N.J.A.C. 7:26-7.4(h)1, 7.4(h)2, 9.2(a)2, 9.3(a)3, 9.4(b)1, 9.4(b)2, 9.4(d)2, 9.4(d)4i, 9.4(d)4iv, 9.4(d)4v, 9.4(d)5, 9.4(f)1, 9.4(f)3, 9.4(g), 9.4(h), 9.6(e), 9.6(f), 9.7 et seq., 9.8(e), 10.4(b), 10.5(e)4 and 11.2(c).

Pursuant to the terms of the Administrative Order, the violations must be corrected and the rules and regulations of this Department must be complied with by the specified date.

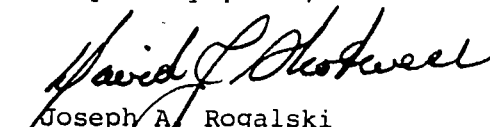
In addition, a penalty settlement offer of \$6,250 will be held open until **JUL 01 1984** to allow for an amicable resolution of this statutory claim for the referenced violation. Be advised that N.J.S.A. 13:1E-9c provides for a maximum civil penalty of \$25,000 per day for violations of this nature.

In the event of non-compliance with the Administrative Order and/or non-acceptance of this penalty settlement offer, this matter will be referred to the Office of the Attorney General for the initiation of litigation to enforce the Order and seek the full penalties allowed by law.

Should you wish to discuss the specifics for acceptable compliance with these directives, contact William Nehls at (609) 292-0967.

Be advised that such discussion will not automatically delay or otherwise extend the deadline for compliance with the Administrative Order.

Very truly yours,


Joseph A. Rogalski
Assistant Director

FO1:FO16:kas
Attachment



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
120 Rt. 156, Yardville, N.J. 08620

JACK STANTON
DIRECTOR

LINO F. PEREIRA
DEPUTY DIRECTOR

AUG 09 1983

Arsynco, Inc.
Wesley Bennett
P.O. Box 8
Carlstadt, New Jersey 08625

RE: NOTICE OF VIOLATION AND PENALTY SETTLEMENT OFFER
FAILURE TO ESTABLISH FINANCIAL ASSURANCE FOR
CLOSURE AND POST-CLOSURE AND TO DEMONSTRATE
FINANCIAL RESPONSIBILITY FOR CLAIMS
EPA I.D. #NJDO44688935

Dear Mr. Bennett: ;

Pursuant to the provisions of New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-1, et seq., the Department of Environmental Protection has determined by examination of our files that you violated N.J.A.C. 7:26-9.10(e) and 9.11(c) in that you have failed to establish and/or submit to the Department financial assurance for closure and post-closure of the facility, and N.J.A.C. 7:26-9.13 in that you have failed to demonstrate financial responsibility for claims arising from the operations of your facility for sudden or non-sudden and accidental occurrences that cause injury to persons or property.

NOW, THEREFORE, YOU ARE HEREBY NOTIFIED that your facility shall submit the required documents within thirty (30) days of receipt of this Notice to: Frank Coolick, Bureau of Hazardous Waste Engineering, 32 East Hanover Street, Trenton, New Jersey 08625.

Further, N.J.S.A. 13:1E-9c provides for maximum civil penalties of \$25,000 per day for violations of this nature. In accordance with N.J.S.A. 13:1E-9d, the Department is amenable to compromise and settle the statutory claim for penalties for the aforementioned violations for the sum of \$2,000.

Should you decide to accept this Penalty Settlement Offer, payment must be made within thirty (30) days of your receipt of this letter. Only checks or money orders drawn to the New Jersey Department of Environmental Protection will be accepted.

ATTACHMENT I

New Jersey Is An Equal Opportunity Employer

Should you decide not to accept this Penalty Settlement Offer or fail to forward payment within thirty (30) days of receipt of this letter, this offer is rescinded and this matter will be referred to the Office of the Attorney General for the initiation of litigation seeking the full penalties allowed by law.

Acceptance of this Penalty Settlement Offer does not relieve you from immediately complying with the sections of the New Jersey Administrative Code cited above. Each day the violation continues shall be considered a separate violation subject to penalties of up to \$25,000 per day.

If you have questions regarding this Notice of Violation and Penalty Settlement Offer, please call the Bureau of Compliance and Enforcement at (609) 292-0967. If you have questions regarding the documents to be submitted, please call the Bureau of Hazardous Waste Engineering at (609) 292-9880.

Date:

August 8, 1983

Joseph A. Rogalski
Joseph A. Rogalski
Assistant Director

DJS:kas

RCRA INSPECTION REVIEW SHEET

Name of Facility - Arsynco Inc.

RCRA ID# - NJ004468935

Date of Inspection - 9-17-81

Type of Inspection:

Generator

Transporter

TSD

Name of EPA/State Inspector

#1 Iannuzzi

Findings of Inspection:

Violations:

262.31 & 262.32 - containers not labeled.

262.30 - " leaking.

262.42(a) & (b) - no gen receipt or exception reports.

Sent Waste to Valmet, NJ. which is not registered in RCRA (non-notifier).

265.16 - no written doc. person train.

265.15 - no inspt. schedule.

265.51 - inadequate conting. plan.

Action(s) Taken:

Will refer state violations, use of improper manifests, not sending

DEP copies in, shipping waste illegal facility, accepting waste without proper registration, receiving unmanifest shipment

Action(s) Recommended:

Issue complaint for containers storage problems and manifest use, violation for paperwork requirements.

ATTACHMENT

H

RCRA GENERATOR INSPECTION FORM

COMPANY NAME:

ARSynco Inc.

EPA I.D. NUMBER:

NJ0044688935

COMPANY ADDRESS:

foot of 13th street, Carlstadt, NJ.

COMPANY CONTACT OR OFFICIAL:

Wesley Bennett

INSPECTOR'S NAME:

Alphonse Iannuzzi

TITLE:

safety Engineer
SAYS IT

BRANCH/ORGANIZATION:

NJDEP

CHECK IF FACILITY IS ALSO A TSD

FACILITY / /

DATE OF INSPECTION:

9-17-87

YES

NO

DON'T
KNOW

- (1) Is there reason to believe that the facility has hazardous waste on site? X — —

a. If yes, what leads you to believe it is hazardous waste?
Check appropriate box:

☒ Company admits that its waste is hazardous during the inspection.

☒ Company admitted the waste is hazardous in its RCRA notification and/or Part A Permit Application.

☐ The waste material is listed in the regulations as a hazardous waste from a nonspecific source (§261.31)

☐ The waste material is listed in the regulations as a hazardous waste from a specific source (§261.32)

☐ The material or product is listed in the regulations as a discarded commercial chemical product (§261.33)

☐ EPA testing has shown characteristics of ignitability, corrosivity, reactivity or extraction procedure toxicity, or has revealed hazardous constituents (please attach analysis report)

☐ Company is unsure but there is reason to believe that waste materials are hazardous. (Explain)

YESNODON'T
KNOW

- b. Is there reason to believe that there are hazardous wastes on-site which the company claims are merely products or raw materials?

X — —

Please explain:

Some drums that are in poor condition, facilities claims will be used in future (see comments).

- c. Identify the hazardous wastes that are on-site, and estimate-approximate quantities of each.

from
Mr. Bennett →

- 1) 40 drums 55 gallon capacity of still bottom residue
- 2) 20,000 gallons of Toluene, methanol, and Xylene mixture
- 3) 20 drums (55 gallon) off-spec trimellitic acid chloride product

d. Describe the activities that result in the generation of hazardous waste.

- 1) distillation process for product manufacturing
- 2) recovered solvent from processes (is burned in companies boiler)
- 3) off-spec products.

- (2) Is hazardous waste stored on site?

X — —

Some drums on site since Nov. 19.

- a. What is the longest period that it has been accumulated?

Mr. Bennett stated approx. 1 to 2 years, but is not certain (however waste 1,1,1 trichloroethane has been on site for several years).

b. Is the date when drums were placed in storage marked on each drum? X — —

- (3) Has hazardous waste been shipped from this facility since November 19, 1980?

X — —

- a. If "yes," approximately how many shipments were made?

- (4) Approximately how many hazardous waste shipments off site have been made since November 19, 1980? 2

- a. Does it appear from the available information that there is a manifest copy available for each hazardous waste shipment that has been made? X — —

- b. If "no" or "don't know," please elaborate.

YES	NO	DON'T KNOW
-----	----	------------

c. Does each manifest (or a representative sample) have the following information?

facility used old NJ manifests for shipments in 1988

- | | | | | |
|--|--|----------|----------|---|
| - a manifest document number | <i>see attached copies</i> | <u>X</u> | — | — |
| - the generator's name, mailing address, telephone number, and EPA identification number | | <u>X</u> | — | — |
| - the name, and EPA identification number of each transporter | <i>A-93/91 (6/19/81)</i> | — | <u>X</u> | — |
| - the name, address and EPA identification number of the designated facility and an alternate facility, if any: | <i>A-93/91 (6/19/81)</i> | — | <u>X</u> | — |
| - a description of the wastes (DOT) | | — | <u>X</u> | — |
| - the total quantity of each hazardous waste by units of weight or volume, and the type and number of containers as loaded into or onto the transport vehicle | | <u>X</u> | — | — |
| - a certification that the materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation under regulations of the Department of Transportation and the EPA | <i>used old NJ manifest forms when EPA</i> | — | <u>X</u> | — |

approved forms should have been used and did not send in NJ Administration copies for shipments.

(5) Were there any hazardous wastes stored on site at the time of the inspection?

a. If "yes," do they appear properly packaged (if in containers) or, if in tanks, are the tanks secure?

b. If not properly packaged or in secure tanks, please explain.

c. Are containers clearly marked and labelled?

d. Do any containers appear to be leaking?

e. If "yes," approximately how many?

approx. 6

GENERATOR INSPECTION CHECKLIST

		YES	NO	N/A
7:26-8.5	<u>Hazardous waste determination</u>			
	(a) Did the generator test its waste to determine whether it is hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the waste hazardous?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-8.5(b)2	Is the generator determining that its waste exhibits a hazardous waste characteristic(s) based on its knowledge of the material(s) or processes used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has hazardous waste been shipped off site since November 19, 1980?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If yes, how many shipments, off site, have been made and describe the approximate size of an average shipment made on a monthly basis. If facility is a small quantity generator, please explain.			
	<i>company allows for waste to accumulate indefinitely</i> 1984 - none 1985 - none 1986 - one shipment (60 drums of solids) 1987 - one shipment as of 10/20/87			
7:26-7.4(a)1	Does the generator have an EPA ID #?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4	Does each manifest have the following information? Please circle the elements missing and obtain a copy of the incomplete manifests. (List those manifests that are deficient)			
7:26-7.4(a)4i	The generator's name, address and phone number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4ii	The generator's EPA ID number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4iii	The transporter(s) name, address and phone number? <i>no transporter NJ registration hauler's number</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4iv	The transporter(s) EPA ID number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4vi	The TSDF's EPA ID number?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)4vii	The name, type and quantity of hazardous waste being shipped, including such particulars as may be required regarding same?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-7.4(a)4viii	Special handling instructions and any other information required on the form to be shipped by the generator?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5	Before allowing the manifested waste to leave the generator's property, did the generator:			
7:26-7.4(a)5i	Sign the manifest certification by hand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5ii	Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iii	Retain one copy and forward one copy to the state of origin and one copy to the state of destination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iv	Give remaining copies of the manifest form to the transporter?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(f)1	Has the generator maintained facility records for three (3) years? (Manifest(s), exception report(s) and waste analysis)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)1	Has the generator received signed copies of portion B (from the TSD facility) of all manifests for waste shipped off site more than 35 days ago?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)2	If not:			
	1. Did the generator contact the hauler and/or the owner or operator of the TSDF and the NJDEP at 609-292-9877 to inform the NJDEP of the situation, and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2. Have exception reports been submitted to the Department covering any of these shipments made more than 45 days ago?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Before transporting or offering hazardous waste for transportation off site, does the generator?			
7:26-7.2(a)	Conspicuously label appropriate manifest numbers on all hazardous waste containers that are intended for shipment? <i>none were about to be shipped</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-7.2(b)	Insure that all containers used to transport hazardous waste off site are in conformance with applicable DOT regulations (i.e., 49 CFR 171 - 49 CFR 179)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

YES NO N/A

7:26-9.3

Accumulation time

How is waste accumulated on site?

- ☒ Containers
- ☒ Tanks (complete HWMF checklist)
 - ☒ Aboveground ☐ Below ground
- ☐ Surface impoundments (complete HWMF checklist)
- ☐ Piles (complete HWMF checklist)

7:26-9.3(a)3

Is each container clearly dated with each period of accumulation so as to be visible for inspection? *containers of spent solvents for recycling. (also no haz. waste labels).*

— ☒ —
☒ — —

7:26-9.3(a)1

Is waste accumulated for more than 90 days?

If yes, complete HWMF checklist.

STOP HERE IF THE HAZARDOUS WASTE MANAGEMENT FACILITY (TSD) CHECKLIST IS FILLED OUT.

no underground tanks

HAZARDOUS WASTE FACILITY STANDARDS

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(b)	<u>Waste Analysis</u>			
7:26-9.4(b)1i	Is there a detailed chemical and physical analysis of a representative sample of the waste(s) or each waste? (At a minimum, this analysis must contain all the information necessary for proper treatment, storage or disposal of the waste.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)1iii	Does the character of the waste handled at the facility change from day to day, week to week, etc., thus requiring frequent testing? Check only one: Waste characteristics vary <input checked="" type="checkbox"/> All waste(s) are basically the same <input checked="" type="checkbox"/> Company treats all waste(s) as hazardous <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2	Is there a written waste analysis plan at the facility? Does it contain:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(2)i	Parameters for which <u>each hazardous waste stream will be analyzed including constituents listed in NJAC 7:26-8.16 and the rationale for the selection of these parameters?</u> <i>not for unknown waste streams</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2ii	The test methods which will be used to test for these parameters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2iii	The sampling method which will be used to obtain a representative sample of the waste to be analyzed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2iv	The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2v	For off-site facilities, the waste analysis that hazardous waste generators have agreed to supply?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(b)2vii	Procedures which will be used to identify changes in waste stream characteristics?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(b)3	Did the owner or operator submit the waste analysis plan to the Department? If yes, when was the plan submitted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YES NO N/A

Does hazardous waste come to this facility from an outside source? (e.g., another generator)

— — ✓ —

If yes, list the name(s) of generators.

7:26-9.4(b)4

If waste comes from an outside source, are there procedures in the waste analysis plan to insure that waste received conforms to the accompanying manifest?

— — ✓ —

Does the plan describe:

7:26-9.4(b)4i

The procedures which will be used to determine the identity of each shipment of waste managed at the facility?

— — ✓ —

7:26-9.4(b)4ii

The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling?

— — ✓ —

7:26-9.4(h)

Security

Does the facility have:

7:26-9.4(h)1i

A 24 hour surveillance system which continuously monitors and controls entry onto the active portion of the facility? *operates 24/hr day*

✓ — —

7:26-9.4(h)1ii

Grand service on weekends
An artificial or natural barrier, which completely surrounds the active portion of the facility; and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility?

✓ — —

7:26-9.4(h)3

Are there "Danger-Unauthorized Personnel Keep Out" signs posted at each entrance to the facility?

✓ — —

If no, explain what measures are taken for security.

		YES	NO	N/A
7:26-9.4(f)	<u>General Inspection Requirements</u>			
7:26-9.4(f)1	Does the owner or operator inspect the facility for malfunctions and deterioration, operator errors and discharges which may be causing, or may lead to:			
7:26-9.4(f)1i	Discharge of hazardous waste constituents to the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)1ii	A threat to human health?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3	Has the owner or operator developed, and does the owner or operator follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are utilized for the prevention, detection or response to environmental or human health?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3i	Did the owner or operator submit the written inspection schedule to the department?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If yes, when was it submitted?			
7:26-9.4(f)3iii	Is the written inspection schedule kept at the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3iv	Does the schedule identify the types of problems to be looked for during the inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3v	Does the schedule include the frequency of inspection, based upon the rate of possible deterioration of the equipment and the probability of an environmental, or human health incident if the deterioration or malfunctions or any operator error goes undetected between inspections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)5	Is there evidence that problems reported in the inspection log have been remedied?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)6	Does the owner/operator record inspections in a log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are these records kept for at least three (3) years from the date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YES NO N/A

Does the records include the date, and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial action?

___ ✓ ___

7:26-9.4(g)

Personnel training

Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed? *OSHA training. Not her waste*

___ ✓ ___

7:26-9.4(g)2

Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed?

___ ✓ ___

7:26-9.4(g)5

If yes, have facility personnel taken part in an annual review of training?

___ ✓ ___

Is there written documentation of the following:

___ ✓ ___

7:26-9.4(g)6i

Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?

___ ✓ ___

7:26-9.4(g)6ii

A written job description for each position related to hazardous waste management?

___ ✓ ___

7:26-9.4(g)6iii

A written description of the type and amount of both introductory and continuing training given to personnel in jobs related to hazardous waste management?

___ ✓ ___

7:26-9.4(g)6iv

Documentation of actual training or experience received by personnel?

___ ✓ ___

7:26-9.4(g)7

Are training records kept on all current employees until closure of the facility and training records kept on former employees for 3 years from their last date of employment?

___ ✓ ___

7:26-9.4(g)8

Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7:26-9.7?

___ ✓ ___

in process of arranging (have volunteers P.D.)

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.6	<u>Preparedness and prevention</u>			
	Does the facility comply with preparedness and prevention requirements including maintaining:			
7:26-9.6(b)1	An internal communications or alarm system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(c)	Is equipment tested and maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during handling of hazardous waste? <i>work in pairs, at least</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(e)	Adequate aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If no, please explain.

In your opinion, do the types of waste on site require all of the above procedures, or are some not required?

☒ ☐ ☐

Explain.

Some unknown waste onsite. Flammable wastes are handled (recycle); Corrosive waste are handled.

7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for the type of waste handled on site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		YES	NO	N/A
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?			✓
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment suppliers? <i>Waste Conversion, Inc. (verbal)</i>	✓		
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility? <i>(couldn't find letter during insp)</i>	✓		
7:26-9.6(f)5	Arrangements with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually? <i>They'll only inspect once per year</i>	✓		
7:26-9.7	<u>Contingency plan and emergency procedures</u>			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water?	✓		
7:26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	✓		
7:26-9.7(c)	Does the contingency plan describe the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	✓		
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq.? <i>needs to be updated</i>	✓		
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	✓		

(made in 12/7/84)

- 7:26-9.7(e) Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services? ☒
- 7:26-9.7(f) Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up-to-date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall assume responsibility as alternates. ☒
- 7:26-9.7(g) Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required? Is the list kept up-to-date? In addition, does the plan include the location and a physical description of each item on the list, and a brief outline of its capabilities? ☒
- 7:26-9.7(h) Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires)? ☒
- 7:26-9.7(i) Is a copy of the contingency plan and all revisions to the plan:
1. Maintained at the facility; and ☒
 2. Has the contingency plan been submitted to local authorities (police, fire departments, emergency response teams)? ☒
- 7:26-9.8 Closure plan
- 7:26-9.8(c) Does the facility have a written closure plan? ☒
- Does the owner/operator keep a written copy of the closure plan and all revisions to the plan at the facility? ☒

If yes, does the plan include:

*outdated closure plan
prepared in 1985.*

*(one was recently prepared and it addressed only the waste storage area by the
A. H.)*

		YES	NO	N/A
7:26-9.8(e)1i	A description of how and when the facility will be partially closed (if applicable) and ultimately closed? <i>Does not address solvent tank farm which used to store waste solvents</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.8(e)1ii	The maximum extent of the operation which will be open during the life of the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.8(e)2	An estimate of the maximum inventory of wastes in storage or in treatment at any given time during the life of the facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.8(e)3	A description of the steps needed to decontaminate facility equipment during closure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.8(e)4	A schedule for final closure including the anticipated date when the wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Post Closure Plan</u>				
7:26-9.9(g)	Does the facility have a written post-closure plan kept at the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	If yes, does the plan:			
7:26-9.9(i)	Identify the activities which will be carried on after closure and the frequency of these activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.9(i)1	Include a description of the planned ground-water monitoring activities and frequencies at which they will be performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.9(i)2	Include a description of the planned maintenance activities, and frequency at which they will be performed, to insure the following:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.9(i)2i	The integrity of the cap and final cover or other containment structures where applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.9(i)2ii	Describe the function of the facility monitoring equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.9(i)3	Include the name, address and phone number of a person or office to contact about the disposal facility during the post-closure period?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Does the owner/operator have a written estimate of the cost of post-closure for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	If yes, what is it?			

Please circle all appropriate activities and answer questions on indicated pages for all activities circled.

Storage

Treatment

Disposal

Container - pg. 9

Tank - pg. 12

Landfill - pg. 18

Tank, above ground - pg. 12

Surface Impoundments - pg. 15

Tank, below ground - pg. 12

Incineration - pg. 20

Surface Impoundments - pg. 15

Surface Impoundments - pg. 15

Thermal Treatment - pg. 23

Other _____

Waste Piles - pg. 17

Other _____

Chemical, Physical and
Biological Treatment - pg. 25

Other _____

YES NO N/A

7:26-9.4(d)

Containers

What type of containers are used for storage?
Describe the size, type, quantity and nature
of wastes (e.g., 12 fifty-five gallon drums
of waste acetone)

7:26-10.4(b)

Is there a containment system for spills,
leaks and precipitation? *There is none* _____

Is yes, describe the containment system.

7:26-9.4(d)1i

Do the containers appear to be of sturdy leak-
proof construction of adequate wall thickness,
weld, hinge and seam strength, and of
sufficient material strength to withstand
side and bottom shock, while filled, without
impairment of the container's ability to
contain hazardous waste?

If no, explain.

YES NO N/A

7:26-9.4(d)1ii

Are the lids, caps, hinges or other closure devices of sufficient strength that when closed, they will withstand dropping, overturning or other shock without impairment of the container's ability to contain hazardous waste?

— ☒ —

If no, explain.

Some ~~very~~ corroded drums; some have loose rings on top. (open head type drums).

7:26-9.4(d)2

Do the containers appear to be in good condition, not in danger of leaking?

— ☒ —

7:26-9.4(d)2

If not, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.

2-55 gal drums with haz waste stickers ("unknown residue") in storage area next to parking lot (This is the storage area addressed in the closure plan). Containers containing haz. mat. also leaking. (organic oil).

7:26-9.4(d)4i

Are all containers securely closed, except those in use, so that there is no escape of hazardous waste or its vapors?

— ☒ —

If no, explain.

Some have loose covers (rings)

7:26-9.4(d)4iii

Do containers appear to be properly opened, handled or stored in a manner which will minimize the risk of the container rupturing or leaking?

— ☒ —

If no, explain.

Some are leaking; some are very corroded (can actually see contents)

7:26-9.4(d)iv

Are containerized hazardous wastes segregated in storage by waste type?

— ☒ —

7:26-9.4(d)v

Are containerized hazardous wastes arranged so that their identification label is visible?

— ☒ —

7:26-9.4(d)3

Are hazardous wastes stored in containers made of compatible materials?

— ☒ —

		YES	NO	N/A
7:26-9.4(d)5	Does the owner/operator inspect the container storage area at least daily, looking for leaks and for deterioration caused by corrosion or other factors?		✓	
7:26-9.4(d)6	Are containers holding ignitable and reactive waste located at least 50 feet (15 meters) away from the facility's property line?	✓		
7:26-9.4(d)7i	Are incompatible wastes, or incompatible wastes and materials placed in the same container?		✓	
	If yes, explain. 1 x 55 gal drum of waste corrosive solid "ate" through a drum (picture obtained).			
7:26-9.4(d)7ii	Are hazardous wastes placed in unwashed containers that previously held incompatible wastes?		✓	
	If yes, explain.			
7:26-9.4(d)7iii	Are containers holding hazardous waste that are incompatible with any waste or other materials stored nearby in other containers, open tanks, or surface impoundments separated from the other materials or protected from them by means of a dike, berm, wall or other device?			
	Don't know, some waste are unidentified.			
7:26-9.4(e)ii	Are ignitable, reactive or incompatible wastes protected from sources of ignition or reaction?		✓	
	But some are unidentified. So one does not know about those.			
	If no, explain.			
7:26-9.4(e)iii	Does the owner/operator confine smoking and open flames to specially designated locations when ignitable or reactive wastes are being handled?		✓	
	If no, explain.			

		YES	NO	N/A
7:26-9.4(e)1iii	Does the owner/operator conspicuously place "No Smoking" signs whenever there is a hazard from ignitable or reactive waste?	—	<input checked="" type="checkbox"/>	—
	Is the treatment, storage or disposal of ignitable or reactive waste, and the mixture of incompatible wastes and materials, conducted so that it does not:			
7:26-9.4(e)2i	Generate extreme heat or pressure, fire or explosion, or violent reaction?	<input checked="" type="checkbox"/>	—	—
7:26-9.4(e)2ii	Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health?	<input checked="" type="checkbox"/>	—	—
7:26-9.4(e)2iii	Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion?	<input checked="" type="checkbox"/>	—	—
7:26-9.4(e)2iv	Damage the structural integrity of the device or facility containing the waste?	—	<input checked="" type="checkbox"/>	—
7:26-9.4(e)2v	Threaten human health or the environment?	<input checked="" type="checkbox"/>	—	—

7:26-11.2

Tanks

What are the approximate number and size of tanks containing hazardous waste?

Company identified 4 tanks. → Toluene, IPA, unidentified.
 TS8-1, TS8-2, TS8-3, TS8-4
 (2500 gal) (4000 gal) (4000 gal) (4000 gal)

Identify the waste treated (stored) in each tank.

TS8-1 → Toluene
 TS8-2 → IPA
 TS8-3 — IPA
 TS8-4 — don't know

General Operating Requirements

7:26-11.2(a)2

Are hazardous wastes or treatment reagents placed in the tank that could cause the tank or its inner liner to rupture, leak or corrode? based on visual observation

If yes, please explain.

Are there leaking tanks?

— ☒ —
 — ☒ —

YES NO N/A

- 7:26-11.2(a)2 Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger of ruptures, corrosion, leaks or other failures? ☒ YES ☐ NO ☐ N/A
- 7:26-11.2(3) *based on visual observation* Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure? ☐ YES ☐ NO ☒ N/A
- 7:26-11.2(a)4 If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank, e.g., bypass system to a standby tank? ☐ YES ☐ NO ☒ N/A

7:26-11.2(c) Inspections

Is the tank(s) inspected for:

no inspection kept by

1. Discharge control equipment (each operating day) ☐ YES ☒ NO ☐ N/A
2. Monitoring equipment (each operating day) ☐ YES ☒ NO ☐ N/A
3. Level of waste in tank (each operating day) ☐ YES ☒ NO ☐ N/A
4. Construction of materials of the tank (weekly) ☐ YES ☒ NO ☐ N/A
5. Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures (weekly)? ☐ YES ☒ NO ☐ N/A

- 7:26-9.2(b) Are there underground tanks used to store hazardous waste? ☐ YES ☒ NO ☐ N/A
- If yes, how many and can they be entered for inspection? ☐ YES ☐ NO ☒ N/A

Has the underground tank been in use on or before November 19, 1980? Specify date. ☐ YES ☐ NO ☒ N/A

If no, when was the tank placed in use?

- 7:26-11.2(e) Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction? ☒ YES ☐ NO ☐ N/A

If no, please explain.
employees are not allowed to smoke near solvents

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.2(f)	Does it appear that incompatible wastes are being stored separate from each other?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.2(b)3i	Does the facility have a groundwater monitoring plan approved by the Department?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.2(b)3ii	Is the use of the tank specified to the manufacturers recommended lifetime?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-10.5(e)6	Are the underground tanks subjected to periodic integrity testing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

May 18, 1981

ARSYNCO, INC.
CLOSURE PLAN

ID# NJ044688935

Arsynco, Inc. Closure Plan to be put into effect when the following conditions are met.

1. When the officers and stockholders of Arsynco, Inc. decide that the plant operated in Carlstadt, New Jersey (Bergen County) will be closed. We will proceed with the following plan for closure or the amended plan for closure if there are any amendments to the original Closure Plan. We will:
 - A. While in Interim Status, the written Closure Plan will be kept at Arsynco, Inc.
 - B. While in Interim Status, the written Closure Plan will be presented to the Regional Administrator at least 180 days before closure is expected to begin.
 - C. The Closure Plan must be approved, modified or disapproved within 90 days of receipt and after providing the owner or operator and the affected public (through a newspaper notice) the opportunity to submit written comments.
 - D. When the Closure Plan is approved by the Regional Administrator and within 90 days of generating the final volume of hazardous waste, Arsynco, Inc. will treat all hazardous waste in storage or remove them from the facility in accordance with the approved Closure Plan.
 - E. Within six months after generating the final volume of hazardous waste and in accordance with the approved Closure Plan, closure activities must be completed. Unless:
 1. The Regional Administrator may approve a longer Closure period under Part 265.112(c) if Arsynco, Inc. can demonstrate that the required or planned closure activities will,

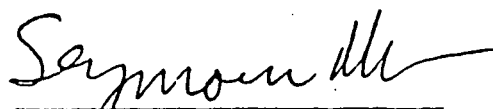
of necessity, take longer than six months to complete and we have taken all steps to eliminate any significant threat to human health and the environment from the unclosed but inactive facility.

2. Hazardous waste that is stored in containers for disposal offsite will be shipped in D.O.T. containers, by an EPA approved transporter to an EPA approved landfill or incinerator for disposal by EPA approved method.
3. Hazardous waste that is stored in containers for recovery offsite will be shipped in D.O.T. approved drums. The transporter shall be EPA approved and the company doing the recovery shall be EPA approved. (The company doing the recovery must be approved as a generator because they will be generating the residue from the recovery of these products).
4. Hazardous waste that is stored in tanks. The recovered hydrocarbons that are stored in tanks and is covered under Part 261.6(b) (they are listed and we store them before using them as fuel in our boiler) are used as fuel in our boiler together with #6 fuel oil. We do not generate enough hydrocarbon to use in our boiler every day so at closure the tanks will be empty. The residue that is left in these tanks will be removed and the tanks cleaned. The residue will be disposed of by an EPA approved method.
5. The hazardous waste area (tank area and drum area) and the area surrounding the hazardous waste areas will be cleared and cleaned of all hazardous material. The hazardous waste and the cleaning from the hazardous waste cleanup will be disposed of in an EPA approved manner.
6. When closure is completed, all facility equipment and structures will be properly disposed of, or decontaminated by removing all hazardous waste and residues and the waste and residues disposed of in an EPA approved manner. (NOTE)

PAGE 3.

7. Arsynco, Inc. will submit to the Regional Administrator certification signed by an officer of Arsynco, Inc. and an independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved Closure Plan.
8. It is our estimate on this day, May 18th, 1981, that the maximum inventory of waste in our tanks on any given date would be 20,000 gallons.
9. It is our estimate on this date, May 18th, 1981 that the maximum number of drums in our hazardous waste drum area would be 200 drums.
10. March 7th, 1984 we have approximately 12,000 gals. of hazardous waste in our tanks, and 107 drums of hazardous waste in our hazardous waste drum area.
11. It is our estimate that it would take \$12,000 to dispose of the hazardous waste drums, \$10,000 to clean and dispose of the residue from the tanks, \$28,000 to clean the buildings, equipment and grounds and to dispose of the hazardous residue from these cleanings.

NOTE: We (Arsynco, Inc.) are a batch manufacturer of many different chemical compounds. The steps needed to clean and remove residue from our equipment will depend on what that equipment was used for last. Generally the residue would be soluble in water or some other solvent. The equipment would be cleaned with the appropriate material or materials to remove the contaminant. The hazardous residues would be disposed of by an EPA approved method.


Seymour Mann
President

5/6/85

ARSYNCO, INC.

AMENDMENT TO CLOSURE PLAN
AS REQUIRED BY N.J.D.E.P.

1. Arsynco, Inc. facility is located on 12.9 acres of which 10 acres are developed. Arsynco, Inc. is a manufacturer of Specialty Organic Chemicals, and we are a batch operation. There are six manufacturing buildings, one machine shop, one boiler-room, two buildings for shipping & receiving, one building for the Q.C. Lab, supervisors offices and locker-room, one building for R&D, one building that houses the main office and employee lunch and locker-room, and two other buildings that are used for storage. There are forty tanks on site that are used to store raw materials and solvents for recycling (solvents for recycling are stored in 10 of the tanks).

2. Arsynco, Inc. has on site:

(a) Solvents for recycling.

- I. Toluene
- II. Xylene
- III. Methanol
- IV. Isopropyl Alcohol
- V. Methylene Chloride
- VI. 1,1,1 Trichloroethane

(b) The residue from the recycling of these solvents.

(c) Still bottom residue from distillation.

3. Tank description including #, capacity, location above or below ground and the specific type of waste stored:

<u>TANK NO.</u>	<u>CAPACITY</u>	<u>LOCATION ABOVE OR BELOW GROUND</u>	<u>TYPE OF SOLVENTS FOR RECYCLING</u>
TS-71	6,333 gals.	above ground	Distilled Xylene
TS-100	1,000 gals.	" "	Xylol, Methanol
TS-62	3,772 gals.	" "	Rec. Xylene
TS-70	500 gals.	" "	Rec. Methylene Chloride
TS-80	500 gals.	" "	" " "
TS-58	2,600 gals.	" "	Rec. Isopropyl Alcohol
TS-78	19,800 gals.	" "	Rec. Toluol
TS-8-1	3,500 gals.	" "	Rec. Toluol
TS-8-2	3,500 gals.	" "	Rec. Methanol
TS-8-3	3,000 gals.	" "	Rec. Isopropyl Alcohol

4. Milestone chart for final closure, including time required for completion of inventory and decontamination of facility.

(a) While in Interim Status, the written closure plan will be presented to the N.J.D.E.P. Commissioner at least 180 days before closure is expected to begin. When the closure plan is approved by the N.J.D.E.P. Commissioner, closure will begin using the following timetable.

- I. Inventory removal - 6 weeks.
- II. Decontamination of facility - 2 weeks.

(b) Removing all inventory/waste.

- I. Quantity of decontamination residue - 2000 gals., 2,000 gals. waste water.
- II. Distance to off-site TSDF - 25 miles (SCA) CECOS-450 miles.
- III. Estimate of the amount of contaminated soil - none.

(c) Decontaminating the facility.

I. Area of the facility with potential soil contamination.

- 1. Tank farm.
- 2. Tank wagon unloading area.
- 3. Hazardous waste drum storage area.

II. Method and procedures for removing and disposing of contaminated soil.

- 1. If contaminated soil is found on the facility site it will be dug up (to the depth of the contamination) and placed in disposal drums for disposal in an approved land fill following all local, state and federal regulations.

III. Soil sample test locations, depths, analysis to be conducted and parameter and rationals for selection of these parameters.

(1) Soil sample test locations.

- (a) West side of tank farm (upgradient from tank farm).
East side of tank farm (downgradient from tank farm).
- (b) West side of hazardous waste drum storage area up-gradient from hazardous waste drum storage area.
East side of hazardous waste drum storage area down-gradient from hazardous waste drums storage area.

(c) Analysis to be conducted and rationale for selection.

1. GC/MS analysis to be performed looking for the materials that were stored in these areas.

IV. List all equipment and/or facilities where contamination could exist.

(a) Tanks #TS-71, TS-71, TS-100, TS-62, TS-70, TS-80, TS-58, TS-78, TS-8-1, TS-8-2 and TS-8-3.

(b) Tank wagon unloading area.

(c) Hazardous waste drums storage area.

V. Method and procedure for decontaminating all equipments and/or facility grounds.

(a) Equipments will be pumped or vacuumed out, washed with solvent or water to remove the last bit of residue. Facility grounds if contaminated will be dug up and replaced with clean fill. The contaminated residues from the cleanup will be disposed of as follows and in accordance with all local, state and federal regulations.

VI. Method for disposing of residue resulting from decontamination.

1. Decontamination of tanks - residue and solvents washing of tank will be incinerated by a TSDF following all local, state and federal regulations.
2. Contaminated soil (if any) will be disposed of in a landfill following all local, state and federal regulations.

(D) Cost Estimate:

1.	Decontamination of tanks -	\$10,000
2.	Soil sampling/analysis	4,000
3.	Professional engineer	
	Certification of closure -	10,000
4.	Cost of any auxiliary equipment, if required -	5,000
5.	Cost of contractor, if required -	5,000
6.	Contingency cost -	5,000

39,000

ARSYNCO, INC. FACILITY

The Arsynco, Inc. facility is located at the Foot of 13th Street in the Borough of Carlstadt, in Bergen County. The facility consists of 12.9 acres (10 acres are usable). There are 14 buildings at the facility. Arsynco, Inc. is in operation five days a week, 24 hours a day. (At times due to demand for product the operation goes for six days.) On the days that the plant is not operating, there is a guard service from Friday night at 11 p.m. to 12 o'clock Sunday night. (The third shift starts working at 11:30 p.m. Sunday night.) There are 60-70 employees divided into three shifts.

Arsynco, Inc.'s facility is served by the Hackensack Water Co., Public Service Electric & Gas Company. Arsynco has a non-contact cooling water pond of 500,000 gallons and a well that supplies water to the pond. All buildings (except the two dry storage tanks) have sprinklers (automatic) with alarms that go off when the sprinklers are operating. The sprinkler lines are supplied with water from Berry Street and 13th Street. (If one line is out of service, we can draw water from the other line.) There are fire extinguishers on each floor of each building. There are three large CO₂ extinguishers on wheels, three hose houses (two with foam), and fire hoses in our three main manufacturing buildings (No. 1, 6 and 8).

Arsynco, Inc. has a main tank farm on the south side of the facility and a smaller tank farm on the northeast side of the facility. There is a hydrogen tank farm on the east side of the facility (tanks in tank farm are diked). Raw materials and finished goods are stored on the west side of the facility.

The main entrance to Arsynco, Inc. is by way of 13th Street. In case of an emergency, the gate at the Foot of Berry Street is opened. Entrance to the Berry Street entrance is by way of Route 17 (north bound).

Arsynco, Inc. manufactures specialty pharmaceuticals and organic chemicals by batch manufacturing processes only. Arsynco, Inc.'s fire insurance company is Industrial Risk Insurers and they inspect our facility at least once a year. The facility was inspected in 1986 by the Carlstadt Fire Department and we do have a fire alarm permit.



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Manufacturing Facilities at Carlstadt Plant

Bldg #1 Area "A"

In this area various organic acids are reacted with phosgene at 80°C. with steam on the reactor jackets. The phosgene is introduced below the local surface. As a result of the reaction HCL and CO₂ vapor is produced which, in turn, entrains a small amount of phosgene. These gases are past through the water scrubber to absorb the HCL and then on to a methanol scrubber where the excess phosgene is reacted to form the Methyl Chlorformate and Methyl Carbonate. The unabsorbed CO₂ is exhausted to the atmosphere to a "vent. There are four reactors in this area and they share scrubbing equipment. When the reactions are completed the units are put under low vacuum and the excess gases dissolved in the reaction mass are removed through these same scrubbing systems. Heat is then applied to the reactors to complete the removal of excess gases and also distill some of the solvent in which the reactions are performed.

Bldg #1 Area "B"

This area not being used at the present time for manufacturing purposes.

Bldg. #1 Area "C"

Located in this area are two hot oil heated vacuum distillation units. The materials manufactured in Area A are distilled at this point. There are no atmosphere vents as the vacuum equipment discharges are scrubbed with water and are emitted through our chemical waste system. Venting of these vessels is only performed upon completion of the distillation and the reactor has been cooled down.

Bldg. #1

This area is presently being reconstructed and we are expecting to perform operations similar to Area A utilizing scrubbing systems for the excess phosgene and other gases.

Bldg. #5

This area is used for atmospheric drying to solid products. The products contain about 10% solvents such as alcohol, toluene and xylene. The drying cycle normally takes 48 hours with an emission of approximately 300/lbs solvent over this period of time.

Manufacturing Facilities at Carlstadt Plant

-2-

Bldg. #6

Distillation of solvents is accomplished in this building with conventional still pots, distillation columns and condensers. The emission to the atmosphere only occurs on the condenser vent at which time the solvents are cooled and have low vapor pressures.

In addition, we manufacture an ester in a hot oil heated reactor. The solvent and products are refluxed back to the reactor during the course of this reaction. As this reaction involves high boiling compounds there are very low vapor pressures on the atmospheric vent side of the condenser. Additional reaction equipment in this area is used in the manufacture of an organic acid performed under atmospheric conditions at temperature not in excess of 100°. The solvent in these reactions is water. The only volumetric compound used during the course of this reaction is ammonia which is reacted and therefore, produces no air emissions.

Bldg. #8

This building is a multi-story manufacturing building containing reactors, crystallizers and centrifuges and autoclaves. There are approximately fifty different chemical compounds made in this area, most using solvents as a reacted medium such as toluol, alcohol and xylene. In all instances where the reactants are to be heated and refluxed there are condensers directly connected to the vessels. The only vessels that have vents leading directly to the atmosphere without any air pollution control devices would be a group of stainless steel crystallizers which are operated at temperatures well below the boiling points of the solvents. (to 10°C.) The centrifuges are exhausted to the atmosphere through a ventilation system. There would be small amounts of solvent emissions through these ventilation systems but we believe they are below the threshold limits required by the State.

There is a general ventilation system in various parts of this building which pick up air at local points to provide safe atmosphere for the operations. These ventilation systems are exhausted through blowers directly to the atmosphere.

Bldg. #19

This area is used for the manufacture of Propylene Imine from Isopropanolamine. The reaction takes place in a conventional jacketed reactor in reflux conditions. Here too, the venting is done through a condenser and the vapor pressure of the various compounds at this point is low enough to preclude measurable air emissions. The vacuum drier located in this building has as a source of vacuum a steam jet assembly. This, in effect, will

Manufacturing Facilities at Carlstadt Plant

-3-

Bldg. #19 (continued)

immediately dissolve any air pollutants and the discharge of these is condensed and put into our chemical sewer.

In all manufacturing areas the various reactors have safety devices installed on the process side. These are normally rupture discs made of carbon or stainless steel. From time to time and completely out of our control, these discs may burst and thus emit relatively large quantities of pollutants into the atmosphere. These are not used as a means of control or part of our operation.

Other areas in the plant are non-manufacturing areas used for warehousing of raw materials and finished goods.

EA/bg

RAW MATERIAL LISTPRODUCT

3A Alc
12A Alc
✓ Allyl Chloride
✓ Amm Thiocyanate 45/50%
✓ Aqua Ammonia
Benzaldehyde
✓ Benzaldehyde FFC
✓ Benzyl Chloride
✓ Butyl Lactate
✓ Butyric Anhy
Caustic Soda 50%
Caustic Soda Flake
Celite
✓ o Chlor Benzaldehyde
✓ Chlorine
✓ Chlorpropionic Acid
Clove Oil
Coumarin Tech
✓ 2-6 Dichlorbenzaldehyde
✓ 40% Dimethylamine
✓ Dimethyl Formamide
✓ Dimethyl Sulfate
DIPE
Drierite
m Ethanolamine
Ethyl Acetate
Ethyl Aceto Acetate
Ethylene Oxide
Falmex (0-155)
✓ Gallic Acid
Heptane
Hydrogen
Hydroxyl Amine Sul.
Hexane Diol
Hylene T
Igepal co-630
? Isophorone
Isopropanol
m Isopropanolamine
J-Sperse-35
Lauryl Pyridinium Cl
Mapo-9102
Methanol
✓ m Methylamine-40%
✓ Methyl Salicy.
Methylene Chloride
Muriatic Acid
Niax LG-56-1
Nitric Acid
o Nitro Chlorbenzene
Nitroflour Aniline
Norite
✓ Phenol
✓ Phosgene
Phosphoic Acid

-2-
RAW MATERIAL LIST

PRODUCT

O.B.
propylene Oxide
potassium Carbon
propanol
propiophenone
aney Catalyst
esorcinol
alt
oda Ash
odium Acetate
odium Bicarbonate
odium Bichromate
odium Nitrite
solvesso 100
stearic Acid
sulfuric Acid 66'
tartaric Acid
TMA
Toluol
Trichlorethylene
Tyzor TPT
Versene Powder
Xylene



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PROCESS SERVICE

OTHER

Many other process services are available and we invite your inquiries with regard to such services. Whether the problem be one of Etherification, Esterification, Distillation, Friedl-Crafts, Chlorination, or Bromination, we think it would be to your benefit to take advantage of the prompt service and experience which back up our Organic Chemicals Department.

To summarize, our equipment is of varied design and construction. We have a wide range of reaction vessels constructed of glass, stainless steel, copper, iron, steel and monel which can be fitted with appropriate condensers and receivers. These vessels are serviced with vacuum, Dowtherm, steam, brine and water. Our separation facilities include rubber-lined, stainless steel, monel and copper centrifuges; ceramic-lined vacuum filters and filter presses, with iron aluminum, and Heresite plates.



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PROCESS SERVICE

REDUCTION AND HYDROGENATION

We are equipped to handle your reductions in the low to medium pressure range (100-350 lbs./sq. in. working pressures). Proper selection of catalyst systems will be recommended for your product. This includes a broad working experience with Raney-Nickel catalysts. Also, our technical staff and production facilities are available to assist you in special hydrogenation problems. For example, partial or selective hydrogenation of one or more functional groups has been efficiently processed.

ACID CHLORIDES

We have an extensive history in the manufacture of aliphatic, aromatic and heterocyclic acid chlorides. We have developed unique techniques using glass equipment and high vacuum distillation whereby we can produce acid chlorides which are light in color, free from sulfur, or other inorganic impurities and assaying better than 98%.

PHOSGENATIONS

We handle Phosgene in large quantities and are prepared to make products such as Isocyanates, Carbamyl Chlorides, Chloroformates, Ureas, Carbodiimides and others.

METHYLATION

Methylation requires experience in the handling and manufacturing of the materials necessary to perform this function. These materials are quite toxic and corrosive, requiring special equipment and handling in order to insure a safe operation. Our background and know-how enable us to conduct these operations and to select the best solvent and reagent to answer particular problems. The result is the purest product at the lowest possible cost.

Continued...



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ORGANIC CHEMICALS

INDUSTRIAL - Cont'd

<u>PRODUCT</u>	<u>SYNONYM</u>
Propenyl Methyl Guaethol (PMG)	1-Ethoxy-2-Methoxy-4-Propenyl Benzene
Propylene Imine	2-Methyl Aziridine
Terephthaloyl Chloride	
Trimellitic Anhydride Mono Acid Chloride (TMAC)	1,2-Benzene Dicarboxylic Anhydride-4-Formyl Chloride
3,4,5-Trimethoxy Benzoic Acid	
3,5,5-Trimethyl Cyclohexanol (TMC)	

TEXTILE CHEMICALS

Aseptiform, Butyl	Butyl-p-Hydroxybenzoate
Aseptiform, Methyl	Methyl-p-Hydroxybenzoate
Aseptiform, Propyl	Propyl-p-Hydroxybenzoate
Ethyl Stearate	
ITP 63, 67	Imine Terminated Polymers
MAPO	Tris- $\overline{1}$ -(2-Methyl)-Aziridiny $\overline{1}$ - Phosphine Oxide
Polypropylene Imine	Poly- $\overline{2}$ -Methyl Aziridine $\overline{2}$
Propylene Imine	2-Methyl Aziridine



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ORGANIC CHEMICALS

INDUSTRIAL - Cont'd

<u>PRODUCT</u>	<u>SYNONYM</u>
Isophthaloyl Chloride	
ITP 63, 67	Imine Terminated Polymers
MAPO, (Regular & Rocket Grades)	Tris- $\overline{1}$ -(2-Methyl)-Aziridiny $\overline{1}$ -Phosphine Oxide
MAPS	Tris- $\overline{1}$ -(2-Methyl)-Aziridiny $\overline{1}$ -Phosphine Sulfate
2-Methyl-2-n-Propyl-1,3-Propanediol	
Mustard Oil	Allyl Isothiocyanate
m-Nitro Benzoyl Chloride	
p-Nitro Benzyl Cyanide	
p-Nitrophenyl Acetic Acid	
Parabens -- (See Aseptofom)	
Phenacetyl Chloride	
Phenoxy Propanol-2	
α -Phenoxy Propionyl Chloride	
Phenyl MAPO	Phenyl-bis- $\overline{2}$ -Methyl Aziridine $\overline{2}$ -Phosphine Oxide
Polypropylene Imine	Poly- $\overline{2}$ -Methyl Aziridine $\overline{2}$



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ORGANIC CHEMICALS

INDUSTRIAL - Cont'd

<u>PRODUCT</u>	<u>SYNONYM</u>
Cyclol Acrylate	2-Hydroxymethyl-5-Norbornene Acrylate
Cyclol Methacrylate	2-Hydroxymethyl-5-Norbornene Methacrylate
N,N-Dibenzyl Amine	
N,N-Dimethyl Benzyl Amine	
Diethyl Carbamyl Chloride	
Diethyl Succinate	
Dihydro Cyclol	2-Hydroxymethyl-5- Norbornane
Dimethyl Carbamyl Chloride	
Dimethyl Hydroquinone	p-Dimethoxy Benzene
Dimethyl Resorcinol	1,3-Dimethoxy Benzene
Dimethyl Succinate	
Ethyl Ethylene Imine	2-Ethyl Aziridine
Ethyl Stearate	
Eugenol	
Glycerol Dichlorohydrin	1,3-Dichloropropanol-2
Glycerol- α -Monochlorohydrin	3-Chloro-1,2-Propanediol



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ORGANIC CHEMICALS

AROMATICS, COSMETICS & FLAVORANTS - Cont'd

<u>PRODUCT</u>	<u>SYNONYM</u>
Trimethyl Cyclohexanol (TMC)	3,5,5 -Trimethyl Cyclohexanol
Vananote	p-Methoxy Acetophenone

INDUSTRIAL

Allyl Isothiocyanate	Mustard Oil
Acryloyl Chloride	
Anisoyl Chloride	p-Methoxy Benzoyl Chloride
Anti-Oxidant 221	p-Hydroxy Anisole
Aseptiform, Methyl Tech.	Methyl-p-Hydroxybenzoate
Aseptiform, Propyl Tech.	Propyl-p-Hydroxybenzoate
Benzylamine	
Catechol Disodium Sulfonate	
Cinnamoyl Chloride	
Cyclan Methyl Anhydride	
Cyclan 100	
Cyclan 200, 230, 330	Trimellitic Anhydride Esters
Cyclol	2-Hydroxymethyl-5-Norbornene



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ORGANIC CHEMICALS

AROMATICS, COSMETICS & FLAVORANTS - Cont'd

<u>PRODUCT</u>	<u>SYNONYM</u>
Cyclonol <i>8</i>	3,5,5-Trimethylcyclohexanol
Diethyl Succinate <i>Diethyl</i>	
Dimethyl Hydroquinone	p-Dimethoxy Benzene
Dimethyl Succinate	
Ethyl Stearate <i>F</i>	
Homomenthyl Salicylate <i>F.L.</i>	Salicylic Acid, 3,5,5 - Trimethyl Cyclohexanol Ester
Melilotin <i>3,4,5</i>	Dihydro Coumarin
Methyl Anisate <i>M. 126</i>	Methyl-p-Methoxy Benzoate
Methyl Eugenol	3,4'-Dimethoxy-1-Allyl Benzene
Methyl Isoeugenol <i>Isobut</i>	3,4'-Dimethoxy-1-Propenyl Benzene
Parabens (See Aseptiform)	
Propenyl Methyl Guaethol (PMG) <i>PMG</i>	1-Ethoxy-2-Methoxy-4-Propenyl Benzene
Rosetone <i>50.76</i>	a,a,a-Trichloro Methyl Phenyl Carbinyl Acetate
Tolyl Acetate <i>cut</i>	Methylbenzyl Acetate



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ORGANIC CHEMICALS

PHARMACEUTICALS & PHARMACEUTICAL INTERMEDIATES - Cont'd

<u>PRODUCT</u>	<u>SYNONYM</u>
Glycerol- α -Monochlorohydrin	3-Chloro-1,2-Propanediol
Mephenesin NF	3-O-Tolyloxy-1,2-Propanediol
Methyl Nicotinate	Pyridine-3-Carboxylic Acid Methyl Ester
2-Methyl-2-n-Propyl-1,3-Propanediol	
Parabens (See Aseptoform)	
Phenacetyl Chloride	
a-Phenoxy Propionyl Chloride	
Propadrine Hydrochloride	Phenyl Propanolamine Hydrochloride
P.M.I. Chloride	3-Phenyl-5-Methylisoxazoyl-4-Carbonyl Chloride
3,4,5-Trimethoxy Benzoic Acid	

AROMATICS, COSMETICS & FLAVORANTS

Anti-Oxidant 221	p-Hydroxy Anisole
Aseptoform, Methyl USP	Methyl-p-Hydroxybenzoate
Aseptoform, Propyl USP	Propyl-p-Hydroxybenzoate
Butyl Butyryl Lactate	2-Butyryl Propionic Acid, Butyl Ester



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ORGANIC CHEMICALS

PHARMACEUTICALS & PHARMACEUTICAL INTERMEDIATES

<u>PRODUCT</u>	<u>SYNONYM</u>
Acetyl Glycol Salicylate	
Anti-Oxidant 221	p-Hydroxy Anisole
Aseptoform, Methyl USP	Methyl-p-Hydroxybenzoate
Aseptoform, Propyl USP	Propyl-p-Hydroxybenzoate
Benzylamine	
p-Chlor Benzyl Cyanide	
Chlorazole Chloride	3-(o-Chlorophenyl)-5-Methylisoxazol-4-Carbonyl Chloride
Diazole Chloride	3-(2',6'-Dichlorophenyl)-5-Methylisoxazol-4-Carbonyl Chloride
2,6-Dimethoxybenzoic Acid	
Dimethyl Resorcinol	1,3-Dimethoxy Benzene
Ethanol Amide of Gentisic Acid	β -Hydroxy Ethyl Gentisate
2-Ethoxy-1-Naphthoyl Chloride	
Glycerol Dichlorohydrin	1,3-Dichloro Propanediol
Glycerol Guaiacolate	3-(o-Methoxyphenoxy) Propanediol

W

VEMINSLS-1

10/26/89
18:05:05NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
STACK LOG LISTING

PAGE

PLANT ID	COUNTY	MUNICIPALITY	BUSINESS NAME	PLANT NAME	PLANT CONTACT				
00098	BER	CARLSTADT	ARSYNCO INCORPORATED	ARSYNCO INC	DENNI V SPA				
		STACK	CERT	COND	STATUS	EXP. DAT	COMPANY DESIGNATION	LAST INS	BY
		000			ZERO		MISCELLANEOUS INSPECTIONS		
		001			DELETE		REACTOR S-5	01/09/84	080
		002	048667		TEMP	02/04/90	STACK V-3	04/19/89	629
		003	007361		EXPD	06/06/89	HAMMER MILL	08/03/89	629
		004			DELETE		BUILDING 21		
		005			DELETE		TANK TB-05-A	03/25/82	080
		006			DELETE		TANK TS-52		
		007			DELETE		TANK TS-62		
		008			DELETE		TANK TS-64		
		009			DELETE		TANK TS-65		
		010			DELETE		TANK TS-71		
		011			DELETE		TANK TS-78		
		012			DELETE		TANK TS-79		
		013			DELETE		TANK 103	12/07/82	080
		014			DELETE		METHYLENE CHLORIDE	12/07/82	080
		015			DELETE		TANK TK-401	03/12/86	088
		016			DELETE		TANK TK-402	03/26/84	080
		017			DELETE		TANK TS-68		
		018			DELETE		TANK TR-78	06/02/87	099
		019			GRAN		TANK TS-53	08/03/89	629
		020			GRAN		TANK TS-54	08/03/89	629
		021			DELETE		TANK TS-55	06/02/87	099
		022			DELETE		TANK TS-56	06/02/87	099
		023			DELETE		TANK TS-57	12/07/82	080
		024			DELETE		TANK TS-58		
		025			DELETE		TANK TS-189		
		026			DELETE		TANK TS-67	06/02/87	099
		027			DELETE		TANK TS-69	04/04/83	080
		028			DELETE		TANK TW METH SAL	06/02/87	099
		029			DELETE		TANK TS-96	06/02/87	099
		030			DELETE		TANK 301	07/24/86	031
		031			DELETE		TANK TS-243	06/02/87	099
		032			DELETE		TANK TS-43		
		033			DELETE		TANK TS-44		
		034	040127		EXPD	10/10/89	CLEAVER BROOKS DELTA 52 BOILERS	08/03/89	629
		035	061574		PERM	06/30/92	# V-CB-2	08/03/89	629
		036	048668		TEMP	01/12/90	REACTOR S-249 EJECTOR VENT-001	04/19/89	629

**** DENOTES UNDEFINED STATUS

MEMINSL-1 10/26/89
18:05:05

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
STACK LOG LISTING

PAGE

PLANT ID	COUNTY	MUNICIPALITY	BUSINESS NAME	PLANT NAME	PLANT CONTACT
00098	BER	CARLSTADT	ARSYNCO INCORPORATED	ARSYNCO INC	DENNI V SPACE

STACK	CERT	COND	STATUS	EXP. DAT	COMPANY DESIGNATION	LAST INS	BY
037	048669		PERM	07/02/91	STILL S-237 VENT V-237 A	07/24/86	031
038	049255		PERM	07/01/90	STORAGE TANK #V-TS-69	07/13/89	629
039	049256		PERM	02/27/91	STORAGE TANK V-TS-70	07/13/89	629
040	049257		PERM	06/30/91	STORAGE V-TS 79A V-TS 79B	07/13/89	629
041	049258		PERM	02/27/91	TANK V-TS-73A V-TS-73B V-TS-73C	08/03/89	629
042	049259		PERM	07/01/90	TANK V-TS-78	07/13/89	629
043	049260		PERM	02/27/91	TANK V-TS-66	07/13/89	629
044	049261		PERM	02/27/91	TANK V-R/R NO.1A = V-RR NO.1B	08/03/89	629
045	049262		PERM	02/27/91	TANK V-TS-05A	08/03/89	629
046	049263		PERM	02/27/91	TANK V-TS-44 CAUSTIC SOLN	08/03/89	629
047	049264		PERM	02/27/91	TANK V-TS-43 CAUSTIC SOLN	08/03/89	629
048	049265		PERM	02/27/91	TANK V-TS-55 CAUSTIC SOLN	08/03/89	629
049	049266		PERM	02/27/91	TANK V-TS-64	07/13/89	629
050	049267		PERM	02/27/91	TANK V-TS-59	08/03/89	629
051	049268		PERM	02/27/91	TANK V-TS-52	07/13/89	629
052	049269		PERM	02/27/91	TANK V-TS-68	07/13/89	629
053	049270		PERM	02/27/91	TANK V-TK-68 #6 FUEL OIL	08/03/89	629
054	049271		PERM	02/27/91	TANK V-TW-NO 1A - V-TW-NO 1B	08/03/89	629
055	049272		PERM	06/11/91	REACTOR (S-4) TO VENT (V-004)	07/13/89	629
056	049273		PERM	06/12/91	V-55A REACTOR (S-5)	07/13/89	629
057	049274		PERM	05/31/91	V-5-9 REACTOR VENT	07/13/89	629
058	049275		PERM	05/31/91	V-J004A (VENT FROM 2 FILTERS)	07/13/89	629
059	049276		PERM	05/31/91	V-J-005A (VENT FROM 2 FILTERS)	07/13/89	629
060	049277		PERM	03/28/91	V-TS-103 METHYLENE CHLORIDE TANK	08/03/89	629
061	049278		PERM	03/28/91	V-TS-58 ISOPROPYL ALCOHOL TANK	08/03/89	629
062	049279		PERM	03/28/91	V-TS-62 XYLENE STORAGE TANK	07/13/89	629
063	049280		PERM	03/28/91	V-TS-65 METHYLENE CHLORIDE STK	08/03/89	629
064	049281		PERM	03/28/91	V-TS-71 RECOVERED SOLVENTS TANK	07/13/89	629
065	049282		PERM	05/13/91	V-TS-189	08/03/89	629
066	049283		PERM	07/16/91	V-S-15 VENT OF REACTOR S-15	08/03/89	629
067	065729		PERM	08/01/93	V-EC #1	08/03/89	629
068	066508		PERM	09/26/93	V-TS-8-3	04/19/89	629
069	091341	X	TEMP	01/29/90	V-19-SCR #1	04/19/89	629
070	068135		PERM	09/08/92	V-19-TS261	08/03/89	629
071	068136		PERM	09/08/92	V-19-TM262A / V-19-TM262B	08/03/89	629
072	068137		PERM	09/08/92	V-19-TS263/TM264A & TM264B	08/03/89	629
073	068138		PERM	12/12/91	V-19-TS267/S245	08/03/89	629
074	068139		PERM	03/17/91	V-19-S-246	08/03/89	629
075	068140		EXPD	03/28/89	V-TS-1	08/03/89	629
076	068768		EXPD	05/14/89	V-TS-8-2	08/03/89	629
077	081339	X	TEMP	01/28/90	KETONE TANK VENT SYSTEM	04/19/89	629
078	081964		PERM	03/02/93	TS-1-23	08/03/89	629
079	081965		PERM	03/02/93	TS-1-24	08/03/89	629
080	090484	X	TEMP	11/27/89	R1-1, R1-2, R1-3 SCHRUBBER	04/19/89	629
081			GRAN		REACTOR S-247 BUILDING #1	07/13/89	027
082			GRAN		BUILDING #8 GRANDFATHERED EQUIP	07/13/89	027
083			GRAN		BUILDING #6 GRANDFATHERED EQUIP	07/13/89	027

**** DENOTES UNDEFINED STATUS